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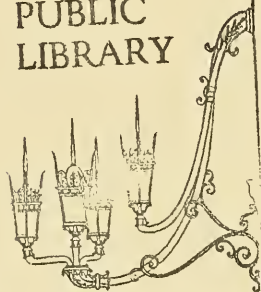
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A PRELIMINARY WORKING
ANNOTATED BIBLIOGRAPHY OF
MAJOR WATER AND RELATED
LAND RESOURCE STUDIES IN
SOUTHEASTERN NEW ENGLAND

PHASE 1

March, 1971

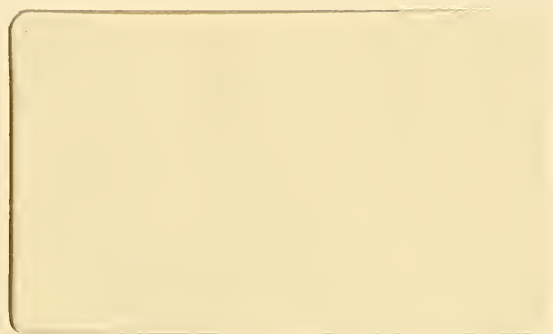
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A PRELIMINARY WORKING
ANNOTATED BIBLIOGRAPHY OF
MAJOR WATER AND RELATED
LAND RESOURCE STUDIES IN
SOUTHEASTERN NEW ENGLAND

PHASE 1

March, 1971





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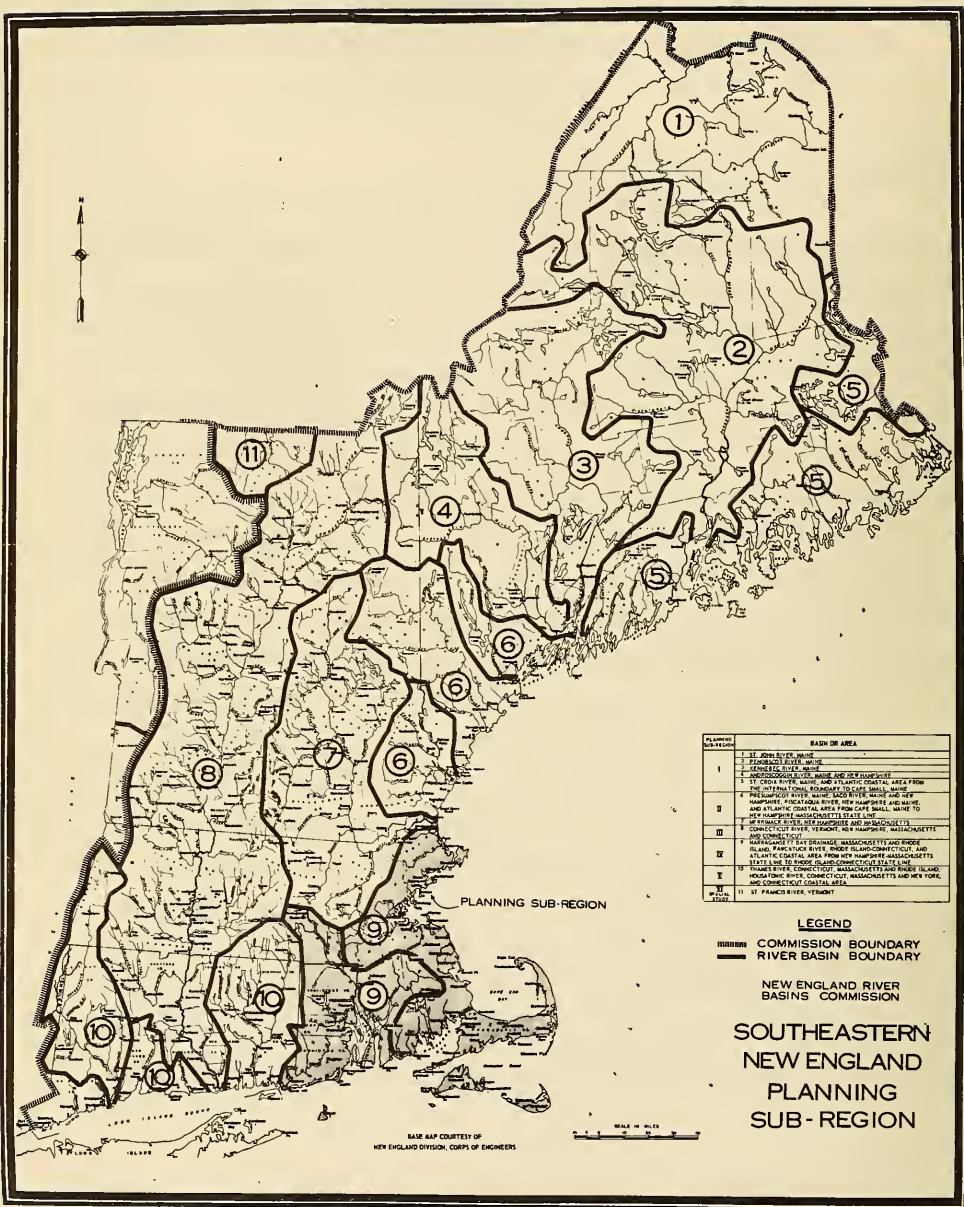
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A PRELIMINARY WORKING ANNOTATED BIBLIOGRAPHY
OF MAJOR WATER AND RELATED LAND RESOURCE STUDIES
IN SOUTHEASTERN NEW ENGLAND

Purpose of the Bibliography

The Southeastern New England (SENE) Study of water and related land resources is being initiated by the New England River Basins Commission during late 1970 or early 1971, under authority of the Water Resources Planning Act of 1965. The objective of the study is to develop coordinated plans of action for maximizing the public benefit of the water and related land resources in the SENE region through the conservation, utilization and development of these resources. The region includes the Massachusetts coastal areas, almost all of the State of Rhode Island, and the southeast corner of Connecticut. Maps of the area are shown on the following pages. Federal, State, regional and local governmental agencies and private groups and individuals will cooperate in preparing the plan with State leadership in the formulation and evaluation of alternative plans.

In recent years, numerous plans have been prepared by Federal, State, regional and local agencies, private groups and individuals, and some planning efforts are underway at the present time. These studies were and are concerned with predominately limited geographical areas or specific problem areas. A major task of SENE will be to make maximum use of these studies in the development of a coordinated and integrated plan for management of the water and related land resources of the region. The SENE area is particularly complex and, if a unified plan of action is to be developed within a limited time and budget, maximum utilization of existing plans and ongoing planning efforts must be



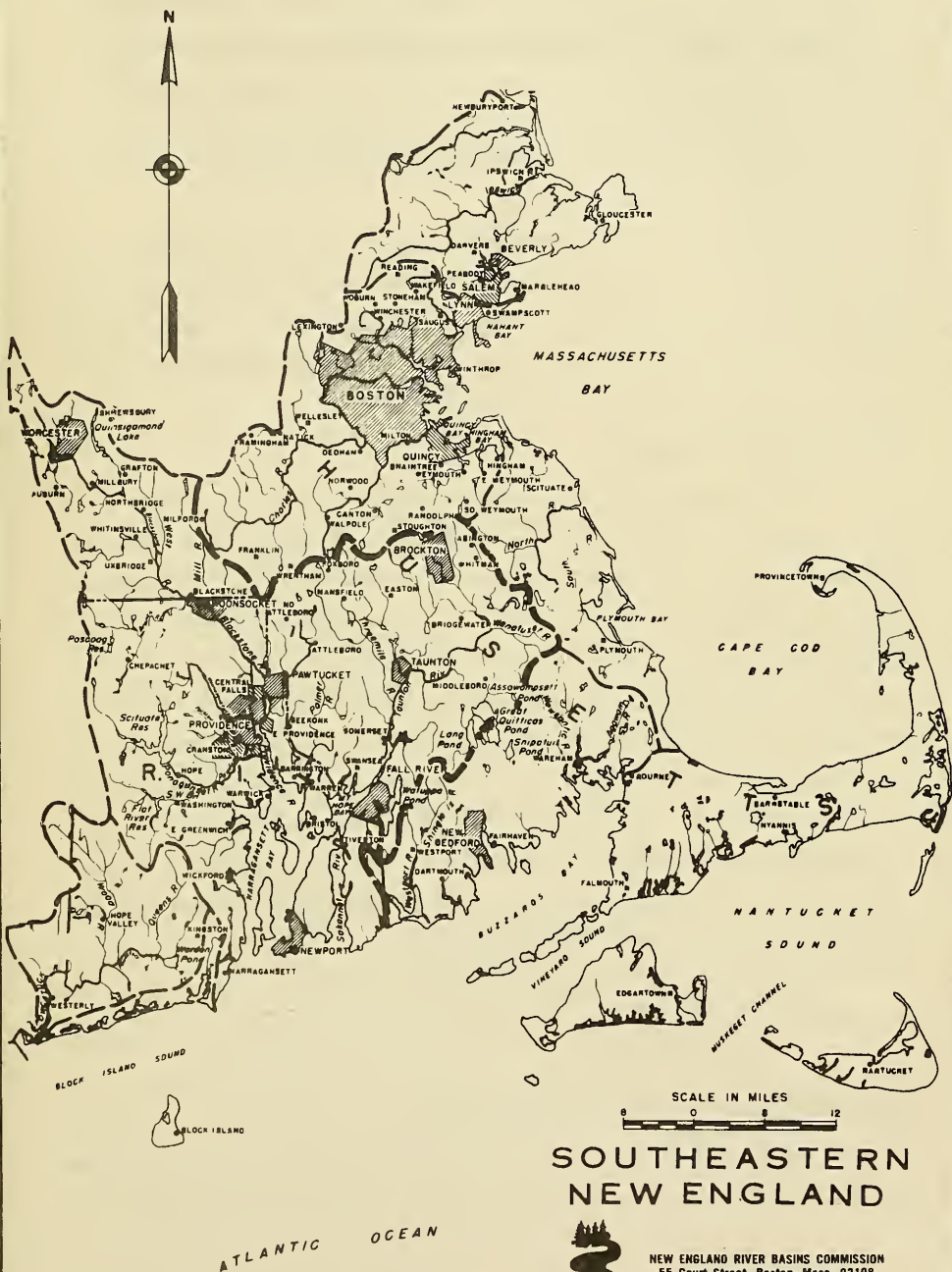
PLANNING SUB-REGION	Basin or Area
I	1. ST. JOHN RIVER, MAINE
	2. PENOBSCOT RIVER, MAINE
	3. KENNEBEC RIVER, MAINE
	4. ANDROSCOGG RIVER, MAINE AND NEW HAMPSHIRE
II	5. ST. JOHN RIVER, MAINE AND NEW HAMPSHIRE
	6. THE INTERNATIONAL BOUNDARY, ST. JOHN RIVER, MAINE AND NEW HAMPSHIRE
	7. THE INTERNATIONAL BOUNDARY, ST. JOHN RIVER, MAINE AND NEW HAMPSHIRE
	8. THE INTERNATIONAL BOUNDARY, ST. JOHN RIVER, MAINE AND NEW HAMPSHIRE
III	9. THE INTERNATIONAL BOUNDARY, ST. JOHN RIVER, MAINE AND NEW HAMPSHIRE
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	15. THE INTERNATIONAL BOUNDARY, ST. JOHN RIVER, MAINE AND NEW HAMPSHIRE
	16. THE INTERNATIONAL BOUNDARY, ST. JOHN RIVER, MAINE AND NEW HAMPSHIRE
V	17. ST. JOHN RIVER, MAINE
	18. ST. JOHN RIVER, MAINE

LEGEND

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— RIVER BASIN BOUNDARY

NEW ENGLAND RIVER
BASINS COMMISSION

SOUTHEASTERN
NEW ENGLAND
PLANNING
SUB-REGION



achieved. The planning strategy of SENE is to devote major efforts to formulation, analysis and evaluation of alternative plans and to de-emphasize new data acquisition and compilation. To implement this strategy, existing and ongoing studies must provide elements of an information base upon which water and related land resource management proposals can be formulated.

The purpose of this annotated bibliography is to provide a basic reference for resource and environmental planners who will be involved in the planning effort. The intent is that this bibliography will help to accelerate the initiation of the substantive planning process.

Scope of the Bibliography

This bibliography is intended to include all major Federal, State, regional, private, and local studies which significantly influence the development of a water and related land resource plan. Although a serious attempt was made to include all important studies, it is likely that because of various factors and limitations major omissions have occurred. This bibliography therefore should be considered as preliminary and a foundation upon which additional efforts can be built. Revision, addition and updating of this preliminary bibliography should be carried out as the planning effort moves forward. This volume of the bibliography is designated as Phase 1. Phase 2, presently under preparation, will include additional studies identified subsequent to the formulation of the Phase 1 bibliography.

Supplementary information on regional and local planning efforts is included in Appendix A.

Organization and Use of the Bibliography

The SENE Study has been divided into study elements representing major resource uses or considerations. These study elements are:

SOCIAL, ENVIRONMENTAL and ECONOMIC FRAMEWORK
WATER and RELATED LAND SUPPLY and AVAILABILITY
RELATIONSHIPS

Climate, Meteorology, Hydrology, Quality, Geology
and Groundwater Availability

Related Land

WATER and RELATED LAND NEEDS and ACTION PROGRAMS

Flood Control and Streamflow Management

Water Quality Control

Groundwater Management

Land Use Patterns, Allocations & Management

Wetlands Management

Sediment and Erosion

Estuarine and Coastal Studies

Environment

Recreation

Fish and Wildlife

Water Supply

Power

Navigation

Irrigation & Drainage

Minerals

Health Aspects

LEGAL & INSTITUTIONAL ENVIRONMENT

A description of each study element is presented in Appendix C.

The bibliography is sectionalized with a separate individual listing or bibliography developed for each element of the study. Some references are repeated in several sections since they are pertinent to each of the sections in which they are listed.

Since inclusion or exclusion of a reference under a particular study element may, in many cases, be a subjective judgement, the users of this bibliography should consult related sections as well as the section devoted to their primary area of interest.

Each entry in the bibliography provides a summary of the content of the report annotated. Also included are the title and scale of maps included since experience during the preparation of the bibliography has shown that one of the major indicators of the detail, scope and hence usefulness of studies is the mapping and scale of mapping included in the report. At the end of each entry is a notation which indicates where the report or study of the entry was found. The notations are abbreviated as follows:

Army	Corps of Engineers 42 Trapelo Road Waltham, Massachusetts 02154
FWQA	Federal Water Quality Administration 240 Highland Avenue Needham, Massachusetts 02194
MAPC	Metropolitan Area Planning Council (Boston Metropolitan Area) 44 School Street Boston, Massachusetts 02108
MF&G	Massachusetts Fisheries and Game 100 Cambridge Street Boston, Massachusetts 02202
MWRC	Massachusetts Water Resources Commission 100 Cambridge Street Boston, Massachusetts 02202
NEMRIP	New England Marine Resources Information Program University of Rhode Island Narragansett, Rhode Island 02882

RISWPP	Rhode Island State Wide Planning Program Room 124 State House Providence, Rhode Island 02903
RIWRB	Rhode Island Water Resources Board 265 Melrose Street Providence, Rhode Island 02907
USF&W	Department of the Interior Bureau of Commercial Fisheries Bureau of Sport Fisheries & Wildlife Post Office Court House Bldg. Boston, Massachusetts 02109

SOCIAL, ENVIRONMENTAL AND ECONOMIC FRAMEWORK

Cape Cod Planning and Economic Development Commission,
Review of Prior Regional Research and Planning Studies
for Cape Cod, November, 1968.

This report capitulates the findings of a 701 Planning Study and represents a comprehensive plan for the Cape. It is organized into four basic sections; population and economic base; development factors such as topography, existing development and transportation; a land use plan; and an outline for action to implement the planning recommendation.

NERBC

Central Merrimack Valley Planning District, Massachusetts Department of Commerce, Bibliography of Studies Pertaining to Planning in the Central Merrimack Valley, by Planning Services Group, Consultants, February, 1964.

This is an annotated bibliography providing a reference to the studies pertaining to planning in the Central Merrimack Valley Region.

NERBC

Central Merrimack Valley Planning District, Massachusetts Department of Commerce, Implementation Techniques for the Central Merrimack Valley Regional Planning Program, by Planning Services Group, Consultants, April, 1964.

This study is concerned with the various techniques or methods by which the commission and local officials will be able to implement the recommendations of the development plan.

NERBC

Central Merrimack Valley Planning District, Massachusetts Department of Commerce, Regional Fiscal Program for the Central Merrimack Valley, by Planning Services Group, Consultants, May, 1964.

The study concerns itself with the administration and financing of regional improvements, community fiscal capacities and programs of regional improvements and other planning recommendations.

NERBC

Central Merrimack Valley Regional Planning District Commission,
A Report on Population Studies, September, 1968.

This report presents an analysis of population data collected by the federal decennial census, the Massachusetts state census and selected statistics and estimates compiled by Massachusetts and New Hampshire state agencies. The first part of the report presents raw statistics while the second part analyzes the major aspects involved in population change and the third part gives population forecasts to the year 1990.

NERBC

Commonwealth of Massachusetts, Profile and Analysis of Economic Data for Massachusetts, October, 1968.

This report is concerned with several interrelated aspects of the problem of formulating an appropriate public investment plan for economic development in Massachusetts.

Maps

State economic areas	1 inch = 20 miles
Standard metropolitan statistical areas	1 inch = 20 miles
Planning Regions in Mass.	1 inch = 20 miles
Cities, towns and counties in Mass.	1 inch = 20 miles

NERBC

Commonwealth of Massachusetts, Executive Office for Administration and Finance, Office of Planning and Program Coordination,
Needs and Resources of Massachusetts, August, 1968.

The report divides Massachusetts into 12 geographical areas and discusses each area in relationship to its standing on social, environmental, and economic problems.

NERBC

Commonwealth of Massachusetts, Legislative Research Council - An Historic Preservation Program for Cities and Towns, January 10, 1966.

This study attempts to offer ways to strengthen state grant-in-aid toward the development of approved local projects of historic importance.

MWRC

Commonwealth of Massachusetts, Water Resources Commission,
Division of Water Pollution Control, River Basins Clas-
sifications, March 6, 1967.

Present and proposed classifications of water in Mass-
achusetts are given with regard to public health, public
enjoyment, propagation and protection of fish and wild-
life, and economic and social development.

Maps

Blackstone River Basin	1 inch = 4.5 miles
Boston Harbor	1 inch = 2.5 miles
Charles River Basin	1 inch = 4.5 miles
Chicopee River Basin	1 inch = 12.5 miles
Concord, Assabet, and Sudbury River Basin	1 inch = 4.5 miles
Connecticut River Basin	1 inch = 6.7 miles
Deerfield River Basin	1 inch = 4.5 miles
Farmington River Basin	1 inch = 4.5 miles
French River Basin	1 inch = 4.5 miles
Hoosic River Basin	1 inch = 4.5 miles
Housatonic River Basin	1 inch = 4.5 miles
Ipswich River Basin	1 inch = 6.7 miles
Kiekamuit, Warren, and Barrington River Basin	1 inch = 3 miles
Merrimack River Basin	1 inch = 5.3 miles
Millers River Basin	1 inch = 4.5 miles
Mystic River Basin	1 inch = 2.5 miles
Nashua River Basin	1 inch = 4.5 miles
Neponset River Basin	1 inch = 4.5 miles
North Coastal	1 inch = 6.7 miles
Parker River Basin	1 inch = 3.5 miles
Quinebaug River Basin	1 inch = 4.5 miles
Scantic River Basin	1 inch = 1.7 miles
Shawsheen River Basin	1 inch = 6.7 miles
South Coastal	1 inch = 6.7 miles
Taunton River Basin	1 inch = 4.5 miles
Ten Mile River Basin	1 inch = 2.7 miles
Westfield River Basin	1 inch = 4.5 miles
Weymouth River Basin	1 inch = 3 miles

NERBC

Commonwealth of Massachusetts, Water Resource Commission,
Division of Water Pollution Control, Water Quality Standards,
March 6, 1967.

A classification system is adopted for Massachusetts's waters to designate future usage with such factors as public health, public enjoyment, propagation and protection of fish and wildlife, and economic and social development considered.

NERBC

Department of the Army, Corps of Engineers, New England Division,
Projective Economic Studies of New England, by Arthur D.
Little, Inc., 1964-1965.

This report analyzes the present and future economic status of New England in terms of the region, its component states and sub-state areas.

Maps

New England's limited access highway network

Location of industrial parks in relation to limited access highways planned or completed in Massachusetts

Outline map of sub-state areas in New England

NERBC

Doyle, Robert G., Jr., The Metropolitan Area Planning Council District - An Annotated Bibliography, July, 1964.

This bibliography lists titles of reports that pertain to the Boston Metropolitan Area's towns and cities.

MAPC

Massachusetts Department of Commerce and Development, Population Movements in Massachusetts 1955-1965, Cities, Counties, SMSA's, Towns, November, 1966.

This report presents a statistical look at the in and out migration between 1955-65 in the state of Massachusetts.

Maps

Massachusetts-in and out migration 1955-65 1 inch = 12 miles

NERBC

Massachusetts Department of Natural Resources, Cape Cod Planning Program, March, 1963.

This study analyzes the existing public and private outdoor recreational areas and facilities of Cape Cod and recommends appropriate action programs for the needs of 1970 and 1980.

NERBC

Massachusetts Department of Natural Resources, Public Access Board, 1968 Annual Report, 1968.

This report reviews the year's accomplishments as to construction projects completed, areas acquired, and the financial balance of the Public Access Board.

Maps

Massachusetts Public Access Board 1 inch = 12 miles
MWRC

Massachusetts Water Resources Commission, Division of Water Pollution, 1969 Annual Report for the Fiscal Year Ending June 30, 1969.

This report is a review of the fiscal year ending June 30, 1969. Also contained in the report are descriptions of the activities of the various components of the division.

NERBC

Metropolitan Area Planning Council, Guides for Progress Development Opportunities for Metropolitan Boston, Eastern Massachusetts Regional Planning Project, April, 1968.

This study is a partial result of the preparation and evaluation of a series of alternative physical development patterns in eastern Massachusetts. It is divided into four major sections: future requirements for the region; regional goals, objectives, and policy recommendations; guides for progress; and public and private investment requirements.

Maps

Regional definition	1 inch = 4.6 miles
Present land suitable for development	1 inch = 4.6 miles
Need for residential renewal	1 inch = 4.6 miles
Highway system	
(1990 controlled dispersal)	1 inch = 4.6 miles

Transit system	
(1990 controlled dispersal)	1 inch = 8 miles
Recommended density umbrella	
(1990 controlled dispersal)	1 inch = 8 miles
Recommended density umbrella	
(1990 composite)	1 inch = 4.6 miles
1966/75 highways	1 inch = 4.6 miles
1966/75 transit	1 inch = 8 miles
Core and outer rings	1 inch = 4.6 miles
Sectors and subsectors	1 inch = 4.6 miles
Population	1 inch = 8 miles
Employment	1 inch = 8 miles
Land suitable for development	
(1990 controlled dispersal)	1 inch = 4.6 miles
Zoning: 1963	no scale

NERBC

Metropolitan Area Planning Council, *The Population of Cities and Towns in Metropolitan Boston Projected to 1990*, April, 1968.

The study contains projections of future population levels and age composition for the 111 communities which comprise the Boston metropolitan area. Many charts on population and age distribution are included.

Maps

Boston metropolitan area	1 inch = 8 miles
Coves and sections	1 inch = 8 miles
Population growth (1960-1975)	1 inch = 8 miles
Population growth (1960-1990)	1 inch = 8 miles

NERBC

New England Regional Commission, *The New England Economy Today and Tomorrow*, by Arthur D. Little, Inc., August, 1968.

This report is a basic assessment and projection of the New England economy on a regional, sub-regional and state basis, with special analyses of key industries and the impact of defense and space-related expenditures on the economy.

Maps

New England: region, sub-regions, states

NERBC

Rhode Island Department of Health, Division of Water Pollution, Water Quality Standards for Interstate Waters, June, 1967.

This report details the water quality classifications of the interstate waters of Rhode Island. The report discusses water quality as a whole and then each water body is examined.

Maps

Proposed classification of water quality	1 inch = 1.65 miles
Present classification of water quality	1 inch = 1.65 miles
	NERBC

Rhode Island Development Council, Rhode Island Department of Administration, Rhode Island Statewide Comprehensive Transportation and Land Use Planning Program, A Guide Plan for Public Investment for the State of Rhode Island, June, 1968.

This study is the mechanism for gauging the status of the state's economy, identifying its problems and its potentials, and guiding public investment into those areas which will most effectively stimulate economic progress. It is developed in four major parts: economic trends and development opportunities, a survey of current and planned state programs, the investment plan, and the future of public investment planning.

Maps

Basic highway plan - 1990	1 inch = 5 miles
Travel time from the center of Providence in minutes: 1965	1 inch = 5 miles
Location of Industrial National Bank branches	1 inch = 5.7 miles
Location of proposed secondary and post secondary vocational-technical facilities	1 inch = 5.7 miles
Health facilities planning districts	1 inch = 5.7 miles
Water planning areas	1 inch = 5.7 miles
Future public sewer areas	1 inch = 5.7 miles
1970 existing and committed highway system	1 inch = 5.7 miles
Recreation systems	1 inch = 5.7 miles

NERBC

United States Department of Agriculture, Economic Research Service, Natural Resource Economics Division, Water Resources Branch, Water Resources in New England and Related Areas, An Annotated Bibliography, Adam A. Sokoloski, August, 1969.

This report contains an annotated bibliography with some of the information pertaining to the Southeastern New England study area. The topics covered are: irrigation and soil moisture, water quality, floods, resource inventory, and management and planning.

NERBC

United States Department of Commerce, Review of Regional Economic Research and Planning of New England.

This book consists of an annotated bibliography which identifies available research on regional economic development in New England.

NERBC

University of Rhode Island, A Socio-Economic Study of Narragansett Bay, Rhode Island.

This study views Narragansett Bay as a natural resource which, in combination with various kinds and amounts of capital, labor and management, produces multiple products and services, some of which are sold in the market place and some which are free to the public.

Maps

Narragansett Bay and vicinity	1 inch = 20,000 ft.
Narragansett Bay project delineation of the study area	1 inch = 6 miles
Narragansett Bay Project population density changes in the study area 1950-65	1 inch = 6 miles
Maps of leased oyster grounds from 1914, superimposed upon polluted shellfish areas 1942-64	1 inch = 3.40 miles
Approximate location of commercial fish traps and location of bay sports fishing	1 inch = 3.40 miles
Location of water recreation facilities, marinas, and bathing beaches	1 inch = 3.40 miles
Watershed	1 inch = 15 miles

Approximate locations of sewage collection facilities
and treatment plants in Narragansett Basin.

1 inch = 6 miles

NERBC

WATER RESOURCE PROGRAM ELEMENTS AND ALTERNATIVES

Central Merrimack Valley Regional Planning District Commission,
The Future Use and Classification of the Merrimack River,
March 1967.

This study evaluates the future use of the Merrimack River
and its importance in the development that will take place in
the Merrimack Valley.

Maps

Reaches of the Merrimack River in the Central Merrimack
Valley Regional Planning District. no scale

The location of major sources of pollution in the Central
Merrimack Valley Regional Planning District. no scale
NERBC

Commonwealth of Massachusetts, Report by the Water Resources
Commission Relative to Authorizing the Department of Public
Works to Improve the Braintree Great Pond in the Towns of
Braintree and Randolph, February 1965.

The scope of this study is to determine the present drainage
area and yield of the pond and the feasibility of various methods
of increasing this yield.

Maps

Great Pond Water Study 1 inch = 600 feet

NERBC

Commonwealth of Massachusetts, Report of the Water Resources
Commission Relative to the Water Resources of Bristol and
Plymouth Counties, January, 1965.

This report contains a description of the capacity of existing
water sources, present and projected water uses, new works
being planned or constructed, available water sources not yet
utilized, and it makes recommendations for possible water
resource developments including suggestions for legislation
necessary for implementing such work.

MWRC

Commonwealth of Massachusetts, Department of Public Works,
Surveys of Great Ponds of the Commonwealth, December 31,
1968.

This report provides a listing of the lakes and reservoirs in Massachusetts plus a description of the rights-of-way to them.

MWRC

Commonwealth of Massachusetts, Water Resources Commission
The Public Water Supply Resources of the Ipswich River,
January 1965.

The report presents past and present water consumption and pollution records and the forecasted future anticipated requirements. The relationship between rainfall and run-off in the basin has been established and the quantity of water available for public water supply has been estimated. Implementation of recommendations is also given.

Maps

Ipswich River Watershed	1 inch = 10,000 feet
Water resources of the Ipswich River Basin	1 inch = 10,000 feet
Proposed water supply improvements for Newburyport, Newbury, West Newbury, and vicinity	1 inch = 4,000 feet

NERBC

Commonwealth of Massachusetts, Water Resources Commission,
Water Resources of Barnstable County, Cape Cod, Massachusetts,
July 1963.

This is a comprehensive study of the water resources of Cape Cod. The report contains information on rainfall, groundwater geology, an inventory of all ponds and reservoirs, present water usage, anticipated future water quality, and predicted total water needs.

Maps

Location of rainfall stations	1 inch = 5.5 miles
Elevation of bedrock	1 inch = 4 miles
Surficial geology and observation wells	1 inch = 4 miles
Location of lakes and reservoirs	1 inch = 4 miles
Areas served by public water systems	1 inch = 4 miles
Location of public sewerage systems	1 inch = 5.5 miles
Generalized hydrologic grouping of soil	1 inch = 9 miles

NERBC

Commonwealth of Massachusetts, Water Resources Commission,
Division of Water Pollution Control, Charles River Study,
1967, Part B: List of Wastewater Discharges, December 1969.

This report lists the data from a survey on some of the major pollution sources of the upper Charles River. The survey identifies the major polluters of the upper section of the Charles River and tries to measure the quantity and condition of their wastewater discharges.

Maps

Charles River Basin	1 inch = 4.7 miles
---------------------	--------------------

NERBC

Department of the Army, Corps of Engineers, Water Resources
Development in Massachusetts, January 1, 1969.

This report discusses the various water resource projects conducted in Massachusetts by the Army Corps of Engineers. These projects consist of works for navigation, flood control, shore protection, tidal flood protection, and other related purposes.

Maps

Authorized Federal Projects in Massachusetts	1 inch = 15 miles
---	-------------------

River Basins in Massachusetts	1 inch = 34 miles
Connecticut River Basin Reservoir Projects	No Scale
Merrimac River Basin	1 inch = 16 miles
Flood Control Projects in the Thames River Basin	1 inch = 9 miles
Hurricanes affecting New England	1 inch = 65 miles
Blackstone River Basin Flood Control Projects	1 inch = 5.8 miles

NERBC

Department of the Army, Corps of Engineers, Water Resources
Development in Rhode Island, January 1, 1969.

This report discusses the various water resource projects conducted in Rhode Island by the Army Corps of Engineers. These projects consist of works for navigation, flood control, shore protection, tidal flood protection, and other related purposes.

Maps

Authorized Federal Projects in Rhode Island	1 inch = 10 miles
Flood Control Projects: Blackstone River Basin	1 inch = 5.8 miles
Hurricanes affecting New England	1 inch = 65 miles
Point Judith multiple-purpose project	1 inch = 4,000 feet

NERBC

Massachusetts Water Resources Commission, Report on Water Resources Management, December 1969.

This study identifies the role of the Commonwealth of Massachusetts in Water Resources management on a statewide basis, and in particular develops guidelines for an integrated comprehensive water resource planning process through which optimum solutions will be formulated to achieve specific goals in the conservation, protection, developments, and utilization of water and related land resources.

MAPC

Natural Resources Group, Report on Administration of Narragansett Bay, January 1, 1969.

This report discusses the present status of Narragansett Bay and also gives recommendations for improving it.

RIWRB

Public Health Service, Massachusetts Coastal Streams, 1952.

This report provides information concerning the use, pollution, results from abatement and prevention of pollution, pollution prevention methods now in effect, and those which are needed of water resources in the Massachusetts coastal area.

Maps

General reference map	1 inch = 15 miles
Existing primary water uses	1 inch = 15 miles
Sources of pollution and existing treatment plants	1 inch = 15 miles
Present stream conditions	1 inch = 15 miles
Projects required	1 inch = 15 miles
Sub-basin areas	1 inch = 15 miles

FWQA

Rhode Island Development Council, The Rhode Island Shore,
A Regional Guide Plan Study, 1955-1970, March 1956.

The study sketches in broad outline the basic resources of the shore region, trends in resource utilization, and goals for the future.

RIWRB

Rhode Island Statewide Comprehensive Transportation and Land Use Planning Program, Report of the Governor's Task Force on Water Resources Planning.

This report consists of sections concerning themselves with the state's role in water resource development, a general water service plan for Rhode Island, proposed organization for statewide water resources planning and development, and implementation and immediate problems.

Maps

Rhode Island water planning areas	1 inch = 5.7 miles
Rhode Island major existing and potential water sources	1 inch = 5.7 miles
Rhode Island general service water areas	1 inch = 5.7 miles
Rhode Island potential water sources and transmission patterns	1 inch = 5.7 miles

RIWRB

Rhode Island, Water Resources Board, Comprehensive Water and Related Land Resources Planning, Task No. 1, Inventory of Water Resources Reports, February, 1969 (Preliminary).

This is a bibliography of authoritative material pertinent to the development of a comprehensive plan for the water and related land resources of Rhode Island.

NERBC

Rhode Island Water Resources Committee, Committee Report on
Special Problems of Water Resources.

This report makes general aims for program development
of the river basins and other water resources in Rhode Island.

RIWRB

Climate, Meteorology, Hydrology, Quality,
Geology, and Groundwater Availability

American Society of Civil Engineers, Basic Information Needs in
Urban Hydrology, April 1969.

This report studies urban hydrology needs. Topics included in the study are water resources, drainage, resource planning and research, resource management, sewerage systems, and research data and information needs.

NERBC

- Commonwealth of Massachusetts, Legislative Research Council, Report Relative to the Water Shortage and Industrial Water Use and Reuse, April 27, 1966.

This report discusses the climatological and meteorological aspects of the drought of the mid-sixties, impact resulting from the water shortage, and the various influencing factors relative to water supply.

NERBC

Commonwealth of Massachusetts, Legislative Research Council, Rights to Surface and Sub-Surface Water in Massachusetts, February 13, 1957.

This report details the effects of the many and varied uses of water. It discusses water as to the water law in Massachusetts, water resources and riparian doctrines, uses of water, industry, agriculture, recreation, hydro-electric power, navigation, flood control, pollution, groundwater, management programs, and problems of water.

Maps

Points of past litigation in Massachusetts (1880-1955)

1 inch = 18 miles

Drainage basins in Massachusetts

1 inch = 18 miles

NERBC

Commonwealth of Massachusetts, Special Report on Groundwater Resources in the Mattapoisett River Valley, May 1960.

This report describes the geologic and hydrologic conditions controlling the occurrence of groundwater in the drainage basin of the Mattapoisett River and discusses several of the factors that should be considered in the development of additional groundwater supplies in that area.

MWRC

Commonwealth of Massachusetts, Water Resources Commission, Water Resources of Barnstable County, Cape Cod, Massachusetts July, 1963.

This is a comprehensive study of the water resources of Cape Cod. The report contains information on rainfall, groundwater geology, an inventory of all ponds and reservoirs, present water usage, anticipated future water quality, and predicted total water needs.

Maps

Location of rainfall stations	1 inch = 5.5 miles
Elevation of bedrock	1 inch = 4 miles
Surficial geology and observation wells	1 inch = 4 miles
Location of lakes and reservoirs	1 inch = 4 miles
Areas served by public water systems	1 inch = 4 miles
Location of public sewerage systems	1 inch = 5.5 miles
Generalized hydrologic grouping of soil	1 inch = 9 miles
	NERBC

Department of the Army, Corps of Engineers, Hurricane Survey, Narragansett Bay Area, Rhode Island and Massachusetts, January 11, 1965.

This report further reflects the studies that have been made to supplement the hurricane report of 1957. All pertinent data including the history and characteristics of hurricanes, tidal hydraulics, coastal engineering and oceanography are utilized.

Maps

Population distribution	no scale
Tracks of selected hurricanes	1 inch = 200 miles
Narragansett Bay general plan of tidal barrier studies	1 inch = 12,000 feet
Narragansett Bay flood area and damages	1 inch = 12,000 feet

NERBC

Department of the Army, Corps of Engineers, Interim Report-Hurricane Survey, Narragansett Bay Area, Rhode Island, Massachusetts, February 15, 1957.

The study encompasses all effects of hurricanes in the Narragansett Bay Area. There is a historical review of past hurricanes in the area and proposals for hurricane protection for the future.

Maps

Narragansett Bay drainage basin map	1 inch = 11.5 miles
Narragansett Bay isohyetal map storm of Sept. 17-22, 1938	1 inch = 55 miles
Narragansett Bay tidal barrier studies, general plan	1 inch = 4,500 yards

NERBC

Department of the Army, Corps of Engineers, Post Flood Report for Flood of 18-25 March 1968 in New England, August, 1968.

This report reviews the flood according to its effect on hydrology, losses (damages), and emergency operations.

Maps

Water equivalent of snow coverage 4 March 1968	1 inch = 30 miles
Isohyetal map storm of March 17-19, 1968	1 inch = 22 miles

NERBC

Department of the Army, North Atlantic Division, Corps of Engineers,
Feasibility Report on Alternative Regional Water Supply Plans for
Southeastern New England, November, 1969.

This report analyzes the Southeastern New England Region on a whole to determine its future water requirements, the capability of individual existing water supply systems, potential surface and groundwater supplies, and requirements for proper project development. It proposes individual basin projects and six alternative regional plans with cost estimates for water supply development. It also discusses project constraints and proposes a better monitoring system for water supplies.

Maps

Southeastern New England water supply feasibility study area	1 inch = 15 miles
Service areas, major water supply systems	1 inch = 13 miles
Plan of Metropolitan District Commission water supply system	1 inch = 6 miles
Maps of individual water supply systems	not to scale
Maps of each drainage basin in study area	
Maximum potential yield, groundwater resources	1 inch = 13 miles
Present stream water quality classifications	1 inch = 15 miles
Proposed stream water quality classifications	1 inch = 15 miles
Maps of proposed projects	
Alternative regional plans A to F for 1990 and combinations for 2020 (12 maps)	1 inch = 14 miles

NERBC

Department of the Army, North Atlantic Division, Corps of Engineers,
Appendices for Feasibility Report on Alternative Regional Water
Supply Plans for Southeastern New England, November, 1969.

This report contains data pertaining to Southeastern New England on population, future water supply requirements, water quality, hydrology, flow requirements for water quality, groundwater resources, the basis of cost estimates, future technology, and projects considered that are not in the main report.

Maps

Maps of each county with population projections	no scale
Locations of water using industries (4 maps)	no scale
Map of Massachusetts and Rhode Island showing extent and saturated thickness of stratified drift and distribution of till	1 inch = 13 miles
Map of Massachusetts and Rhode Island showing rates of groundwater runoff to streams during a dry year	1 inch = 15 miles
Map of Massachusetts and Rhode Island showing areas used for groundwater yield and cost analyses	1 inch = 13 miles

NERBC

Higgins, George R. , Consultant, Yield of Streams in Massachusetts, University of Massachusetts, March, 1967.

This report provides field data from gaged streams in Massachusetts, recurrence interval curves of maximum and minimum flow for gaged streams, duration curves showing the percentages of time that various rates of discharge are equalled or exceeded, and considers specialized studies relating to drainage basin yield and discusses future plans for water resources research.

MWRC

Charles A. Maguire and Associates, Groundwater Situation-Recommended Program for the Development of the Big and Wood River Reservoirs and Waterworks Improvements for the Providence Water Service Area, March, 1968.

This report summarizes the ground water situation within and adjoining the present Providence water supply service area.

Maps

Water service areas	1 inch = 8 miles
Water study areas of Rhode Island	1 inch = 8 miles
Aquifers of Rhode Island	1 inch = 8 miles

.RIWRB

Massachusetts Water Resource Commission, Compilation and Evaluation of Geophysical Data, Cape Cod, Massachusetts, by Weston Geophysical Research, Inc., June, 1962.

This report presents geophysical data on Cape Cod including seismic exploration, gravity studies, and the results from numerous magnetic reconnaissance surveys.

Maps

Plan and quadrangle maps of Cape Cod

Bedrock contour map, Cape Cod

Bouguer gravity anomaly map, Cape Cod

Contour Interval = 5 mg

Vertical magnetic contour map, Cape Cod

Contour Interval = 200 Gm.

MWRC

Massachusetts Water Resources Commission, Compilation of Geophysical Studies Throughout Massachusetts, Part 1 and 2, by Weston Geophysical Engineers, Inc., July, 1967.

This study includes all seismic data which had been obtained in Massachusetts by Weston Observatory and Weston Geophysical Engineers, Inc. through 1966.

NERBC

Massachusetts Water Resources Commission, Hydrology Studies in Massachusetts, by George R. Higgins, Consultants, December, 1964.

This study shows the results of hydrologic studies on gaged streams in Massachusetts. Values of maximum safe yield, storages required for specific yields, flow duration curves, recurrence interval curves, and special studies to supplement these are included. An attempt to estimate the effect that reservoir evaporation would have upon drainage area yield is presented in generalized form to permit application to individual sites. Also included is a discussion of the results to date and recommendations for future studies.

Maps

River basins and gaging stations of the Commonwealth of Massachusetts	1 inch = 20 miles
Mean annual precipitation, inches	1 inch = 44 miles
Approximate storage required in inches for yield of 0.2 in. per month	1 inch = 20 miles
Approximate storage required in inches for yield of 0.5 in. per month	1 inch = 20 miles
Approximate storage required in inches for yield of 1.0 in. per month	1 inch = 20 miles

NERBC

Camp, Dresser and McKee, Consulting Engineers, Comprehensive Groundwater Investigation and Distribution System Study for the Town of Stoughton, Massachusetts, April, 1969.

This report is a comprehensive study of the water supply for the Town of Stoughton. It is broken up into the following parts: comprehensive groundwater investigation, alternate water supply facilities, distribution system study, and recommended improvements.

Maps

Groundwater geology, Stoughton	1 inch = 2,000 feet
Plan of existing water distribution system	1 inch = 900 feet
Groundwater investigation	1 inch = 1,500 feet

MAPC

Cushman, Allen, and Pree. Geologic Factors Affecting the Yield of Rock Wells in Southern New England, 1953.

This report shows how certain geologic factors affect the yield of wells in bedrock and how these effects may be recorded statistically.

RIWRB

Rhode Island Development Council, Bedrock Geology of the Coventry Center Quadrangle, Rhode Island, 1963.

This report is a comprehensive study of the bedrock and surficial geology for the area.

Maps

Bedrock geology of the Coventry Center Quadrangle

Rhode Island

1 inch = 0.4 miles

RIWRB

Rhode Island Development Council, Bedrock Geology of the Kingston Quadrangle, Rhode Island, 1964.

This report is a comprehensive study of the bedrock and surficial geology for the area.

Maps

Bedrock geologic map and sections of the Kingston

Quadrangle, Rhode Island

1 inch = 0.4 miles

RIWRB

Rhode Island Development Council, Bedrock Geology of the Wickford Quadrangle, Rhode Island, 1964.

This report is a comprehensive study of the bedrock and surficial geology for the area.

Maps

Geologic map and sections of the Wickford

Quadrangle, Rhode Island

1 inch = 0.4 miles

RIWRB

Rhode Island Development Council, Bedrock Geology of the Wickford Quadrangle, Rhode Island, 1968.

This report is a comprehensive study of the bedrock and surficial geology for the area.

Maps

Geologic map and sections of the Wickford

Quadrangle, Rhode Island

1 inch = 0.4 miles

RIWRB

Rhode Island Development Council, Groundwater Resources of Bristol, Warren and Barrington, Bristol County, Rhode Island, 1950.

This is a report on the geology and groundwater resources of the area.

Maps

Preliminary map of Bristol County,	
Rhode Island	no scale
Planning glacial geology and location	
of wells	1 inch = 0.6 miles

RIWRB

Rhode Island Development Council, Groundwater Resources of Rhode Island, 1953.

This report ascertains areas capable of supplying large quantities of water for industrial and municipal development; determines which of the readily available supplies are not being fully utilized; and observes the trend of water levels in the wells in order to determine where the ground-water resources of the state are being depleted and where they can be further developed.

Maps

Map of Rhode Island showing the location of ground-water areas, selected wells and test borings, and stream gaging stations.	1 inch = 2 miles
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RIWRB

Rhode Island Development Council, Groundwater Conditions in the Vicinity of Mashapaig Pond, Providence, Rhode Island, 1947.

This study is on the groundwater and geology resources of the area.

RIWRB

Rhode Island Development Council, Groundwater Resources in the Vicinity of Exeter, Rhode Island, 1948.

This study attempts to determine the quantity and quality of existing groundwater supplies and to locate areas favorable for more extensive development.

RIWRB

Rhode Island Water Resources Coordinating Board, Appraisal of the Groundwater Reservoir Areas in Rhode Island, 1961.

This study evaluates the sizes of the groundwater reservoirs, the quantity of water available for replenishing the reservoirs, the present development of the water resources in the area, and the possible conflict between established water uses and possible future large-scale groundwater withdrawals.

Maps

Out wash of Upper Branch River area	1 inch = 0.6 miles
Out wash in groundwater reservoir areas in northeast Rhode Island	1 inch = 1 mile
Out wash in central Rhode Island	1 inch = .9 miles
Out wash in southern Rhode Island	1 inch = 1 mile

RIWRB

Rhode Island Water Resources Coordinating Board, Geohydrological Data for the Upper Pawcatuck River Basin, Rhode Island, 1963.

This report offers basic geologic and hydrologic data that will be useful in studying and planning water resources developments in the future.

Maps

Map of upper Pawcatuck River Basin showing locations of wells, test boring, seismicities, and precipitation, evaporation, stream discharge, and surface-water quality stations.

1 inch = 0.4 mile

RIWRB

Rhode Island Water Resources Coordinating Board. Hydrologic Characteristics and Sustained Yield of Principal Groundwater Units, Potowomot-Wickford Area, Rhode Island.

This report attempts to define the hydrologic capabilities of different groundwater yields in Rhode Island.

RIWRB

Rhode Island Water Resources Coordinating Board. Hydrologic Data for the South Branch Pawtuxet River Basin, Rhode Island, 1966.

This report includes the principal water bearing units and the records of selected wells and test borings.

Maps

Drainage map of the south branch Pawtuxet River Basin.

Location of wells, test borings, stream flow gaging stations, chemical quality sampling sites and area underlain by geofluvial deposits. 1 inch = 0.37 miles

RIWRB

United States Department of the Interior, Flood of March, 1968, in Eastern Massachusetts and Rhode Island, 1970.

This report presents data on flood flows which will permit a hydrologic evaluation of the flood of 1968. Included in the report are the records of stage and discharge stations at 55 stream-gaging stations, 34 crest-stage stations, and 2 miscellaneous sites.

Maps

Map showing location of gage sites in flood-affected area.

Isohyetal map of Massachusetts and Rhode Island showing precipitation in inches on March 17-19, 1968.

1 inch = 30 miles

NERBC

United States Department of the Interior, Geological Surveys
Shoreline Changes Along the South Shore of Cape Cod
Caused by the Hurricane of September 1944, and the
Storms of November 30, 1944, and January 1, 1945, 1946.

This study details the effects of the hurricane and storms on Cape Cod.

Maps

Path of 1944 hurricane in New England	1 inch = 26 miles
South shore of Cape Cod, western part showing areas affected by 1944 hurricane high water	1 inch = .6 miles
South shore of Cape Cod, eastern part showing areas affected by 1944 hurricane high water	1 inch = .6 miles

NERBC

United States Department of the Interior, Hurricane Damage Control
Narragansett Bay and Vicinity, Rhode Island and Massachusetts
A Detailed Report on Fishery Resources, May, 1959.

This report discusses hurricane protection for the marine life of Narragansett Bay. Also included are facts on the environment, seasonal distribution of certain physical and chemical oceanographic variables in the Bay, pollution effects on hard shell clams, effects of lower bay barriers on pollution and physical oceanography, effects of different temperatures and salinities on oysters and sand clams, invertebrates and their environmental relationships, fishery resources, and the planktonic fish eggs and larvae of the Bay.

Maps

Tentative locations of barrier sites	1 inch = 600 yards
Bottom invertebrate study station locations	1 inch = 2.6 nautical miles
Trawl sampling stations	1 inch = 2.6 nautical miles

MF&G

United States Department of the Interior, A Preliminary Bibliography with UWIC Index on the Ecology of Estuaries and Coastal Areas of the Eastern United States, by Robert Livingstone, Jr., May, 1965.

The bibliography emphasizes the ecology of estuarine organisms. In addition, a substantial number of references are included on physical and chemical oceanography and on geology and paleoecology.

MF&G

United States Department of the Interior, Surface Water Records of Massachusetts, New Hampshire, Rhode Island, and Vermont, 1964.

This report gives the surface water records for 1964 for gaging stations in the states found in the title.

NERBC

United States Department of the Interior, Water Data for Metropolitan Areas, 1968.

Included in this report is data on size and population, a statement of the hydrology of the area, a summary of current data--collection activities in the area, a listing of current U.S. Geological Survey investigational projects in the area, and a short listing of reports relating to the hydrology of the area for the following Metropolitan districts; Boston, Brockton, New Bedford, Fall River, and Worcester.

NERBC

United States Department of the Interior, Federal Water Pollution Control Administration, Proceedings of Conference at Boston, Massachusetts, in the Matter of Pollution of the Navigable Waters of Boston Harbor and its Tributaries, April 30, 1969.

This report includes the proceedings of the conference on pollution of Boston Harbor, dated April 30, 1969, and discusses sources of pollution, garbage and refuse disposal, present water quality, water currents, and the deep tunnel proposal. It also includes appendices with data on water quality, fish samples and climate.

Maps

Major municipal discharges	1 inch = 2 miles
Coliform classification standards (summer 1968)	1 inch = 2 miles
Coliform values (summer 1968)	1 inch = 2 miles
Location of areas with dissolved oxygen levels below those set by standards	1 inch = 2 miles
Dissolved oxygen (summer 1968)	1 inch = 2 miles
Station locations (1967)	1 inch = 2 miles
Dredging by Corps of Engineers - United States Army and Commonwealth of Massachusetts (Sept. 1967 - Aug. 1968)	1 inch = 2 miles
Mean total orthophosphate concentrations, high tide (summer 1968)	1 inch = 1.9 miles
Mean total orthophosphate concentrations, low tide (summer 1968)	1 inch = 2 miles
Mean nitrate-nitrogen concentration, high tide (summer 1968)	1 inch = 2 miles
Mean nitrate-nitrogen concentration, low tide (summer 1968)	1 inch = 2 miles
Temperature degrees centigrade, 2 ft. depth, mean low tide (summer 1968)	1 inch = 1.9 miles
Temperature degrees centigrade, 2 ft. depth, mean mid tide (summer 1968)	1 inch = 1.9 miles
Temperature degrees centigrade, 2 ft. depth, mean high tide (summer 1968)	1 inch = 1.9 miles
Station locations (1968)	1 inch = 2 miles
Salinity percentages, 2 ft. depth, mean low tide (summer 1968)	1 inch = 1.9 miles
Salinity percentages, 2 ft. depth, mean mid tide (summer 1968)	1 inch = 1.9 miles
Salinity percentages, 2 ft. depth, mean high tide (summer 1968)	1 inch = 1.9 miles
Drogue study (Oct. 1968)	1 inch = 1.9 miles
Location of current meters	1 inch = 1.9 miles

NERBC

United States Department of the Interior, Fish and Wildlife Service,
Hurricane Damage Control, Narragansett Bay and Vicinity, Rhode
Island and Massachusetts, May, 1965.

This report is a summary of sustaining data which presents the results of studies to evaluate the effects of the proposed plan for hurricane protection on the marine resources of Narragansett Bay.

Maps

Narragansett Bay, general plan of	
tidal barrier studies	1 inch = 16,000 feet
Hydrographic station locations	1 inch = 2.8 nautical miles
Fish eggs and larvae station locations	1 inch = 2.8 nautical miles
Maps of barrier plans included.	

NERBC

United States Department of the Interior, Geological Survey, Geology
and Ground-Water Conditions in the Wilmington-Reading Area,
Massachusetts, 1964.

This report covers the first phase of an investigation of water resources in the Ipswich River Basin.

Maps

Map of Wilmington-Reading area showing generalized	
surficial geology	1 inch = .5 miles

NERBC

United States Department of the Interior, Geological Survey, Groundwater
Conditions in the Hunt River Basin, Rhode Island, April, 1960.

This report describes the geologic and hydrologic conditions controlling the occurrence of groundwater in the Hunt River Drainage Basin.

RIWRB

United States Department of the Interior, Geological Survey,
Massachusetts Basic-Data Report No. 1, Ground-Water Series,
Wilmington-Reading Area, 1961.

This study contains records and logs of selected wells and test holes, chemical analyses of water and water levels in observation wells in the Wilmington-Reading area.

Maps

Map of Wilmington-Reading area showing locations of selected wells, test holes and springs 1 inch = .5 miles

NERBC

United States Department of the Interior, Geological Survey,
Massachusetts Basic-Data Report No. 2, Ground-Water Series,
Lower Ipswich River Drainage Basin, 1962.

This study contains records of wells, materials tests, and chemical analyses of water in the lower Ipswich River Basin.

Maps

Maps of Ipswich River drainage basin showing Wilmington-Reading area selected wells, test holes and springs below the stream gaging station at South Middleton.

1 inch = .5 miles

NERBC

United States Department of the Interior, Geological Survey,
Massachusetts Basic-Data Report No. 4, Ground-Water Series,
Parker and Rowley River Basins, 1962.

This report contains records of wells, materials tests and chemical analyses of water in the Parker and Rowley River Basins.

Maps

Map of Parker and Rowley River drainage basins showing locations of selected test holes and wells.

1 inch = 4 miles

NERBC

United States Department of the Interior, Geological Survey,
Massachusetts Basic-Data Report No. 5, Ground-Water Series,
Brockton-Pembroke Area, 1962.

This study shows records of selected wells, test holes, ponds,
and streams in the Brockton-Pembroke area.

Maps

Map of Brockton-Pembroke area showing locations of selected
wells, test holes and stream gaging stations

1 inch = .5 miles

NERBC

United States Department of the Interior, Geological Survey,
Massachusetts Basic-Data Report No. 7, Ground-Water Series,
Southeastern Massachusetts, 1963.

This study contains records and logs of selected wells and test
holes and chemical analyses of water in Southeastern Massachusetts.

Maps

Map of Southeastern Massachusetts showing locations of wells
and test holes and areas underlain by hill and stratified deposits.

1 inch = 2 miles

NERBC

United States Department of the Interior, Geological Survey,
Massachusetts Basic-Data Report No. 10, Ground-Water Series,
Northern Part, Ten Mile and Taunton River Basins, 1967.

This study contains records of wells, test holes, borings, seismic
data, municipal water systems, and chemical analyses of water in
the northern part of the Ten Mile and Taunton River Basins, Massa-
chusetts.

Maps

Map of the northern part, Ten Mile and Taunton River Basins,
showing sites of hydrologic data.

1 inch = .5 miles

NERBC

United States Department of the Interior, Geological Survey,
Water Resources of the Ipswich River Basin, Massachusetts, 1966.

This report details the water resources of the Ipswich River Basin, covering geology, hydrology and water resources development.

Maps

Location of the Ipswich River Basin 1 inch = 45 miles
Map and section showing surficial geology and depths
to bedrock in the Ipswich River Basin 1 inch = .5 miles
Map showing availability of ground water and location
of municipal water supplies, selected wells and stream
gaging stations in the Ipswich River Basin
1 inch = 1 mile

NERBC

United States Geological Survey, Water Resource Investigations
in Rhode Island, April 1, 1963.

This report describes the hydrologic data network of Rhode Island which encompasses streamflow stations, groundwater observation wells, and quality of water observations.

RIWRB

University of Massachusetts, United States Department of Agriculture,
Cooperative Extension Service, An Inventory and Interpretation:
Selected Resources of the Island of Nantucket, 1966.

This study inventories selected resources on the Island, identifies resource complexes that have value greater than that of the individual resource, looks for relationships between the natural resource base and existing and/or future land use patterns, and identifies resources individually or collectively which require some form of protection or management program for retention or enhancement of their intrinsic value.

Maps

Geology, topography, and groundwater	1 inch = 1.6 miles
Major vegetation types	1 inch = 1.6 miles
Habitat of selected game species	1 inch = 1.6 miles
Shorebirds, waterfowl, and eel grass	1 inch = 1.6 miles
Principal mollusk and crustacean areas	1 inch = 1.6 miles
Principal finfish areas	1 inch = 1.6 miles
Shoreline survey key map	1 inch = 1.6 miles
Storm damage and shoreline changes	1 inch = 1.6 miles
Circulation	1 inch = 1.6 miles
Land ownership pattern	1 inch = 1.6 miles
Historical and archeological sites	1 inch = 1.6 miles
Major biophysical resource areas	1 inch = 1.6 miles
Natural factors (as potential determinants of land use)	1 inch = 1.6 miles
Landscape types and values	1 inch = 1.6 miles

NERBC

University of Rhode Island, Geophysical Resistivity Study of the Ground-water Characteristics of Glacial Deposits, Block Island, Rhode Island, by Fisher, July, 1969.

This study attempts to correlate hydrologic characteristics of glacial deposits with resistivity data to develop suitable criteria for determining the groundwater supply potential of glacial deposit.

RIWRB

University of Rhode Island, The Graduate School of Oceanography, The Narragansett Marine Bibliography (Narragansett Bay and Adjacent Waters), October, 1968.

This document is designed to serve as a reference guide to the scientific studies on Narragansett Bay, Rhode Island Sound, and nearby waters. Its format consists of listings under four general categories: biological, chemical, geological, and physical oceanography.

NERBC

- * University of Rhode Island, The Sea-Grant College Program at the University of Rhode Island, A Proposal for Institutional Support Under the National Sea-Grant College and Program Act of 1966.

This proposal outlines the University's program in teaching, research, and public service. The specific portions of the program for which support is requested are noted.

NERBC

- *There is also a supplement to this pamphlet entitled: Supplement, The Sea-Grant College Program at the University of Rhode Island.

WATER AND RELATED LAND SUPPLY AND AVAILABILITY RELATIONSHIPS

Related Land

Commonwealth of Massachusetts, Report of the Special Commission Directed to Study the use of Certain Lands and Water in the Commonwealth for Recreational Purposes, December 6, 1933.

This report describes those lands and waters owned by the Commonwealth under the control of the Department of Natural Resources, and also ocean frontage and great ponds which are not subject to private ownership, those owned by the Commonwealth and under the control of the Metropolitan District Commission, and those under the control of any political subdivision of the Commonwealth.

MWRC

Commonwealth of Massachusetts, Special Report of the Department of Natural Resources, Relative to the Advisability of Preserving the Wetlands of the Neponset River Valley for Certain Purposes, January, 1964.

This report discusses the tidal lands, the fowl meadow, and the uplands of the Neponset River Valley.

Maps

Drainage basins of Massachusetts	1 inch = 22 miles
Limited access highways	1 inch = 15 miles
Proposed fowl meadow land use	1 inch = 15 miles

MWRC

Department of the Army, Corps of Engineers, Charles River Study:
Recreation, InterimMemo #6, Proposed Bikeway Systems for
Lower Basin and Muddy River, February 10, 1970.

This report discusses the development of bikeways for
the City of Boston.

Maps

Proposed bikeway systems for lower basin and
Muddy River 1 inch = 0.4 mile

Proposed bikeway systems for lower basin and
Muddy River 1 inch = 0.4 mile

NERBC

Department of the Army, Corps of Engineers, Charles River Study,
Status Report, September 1, 1968.

This is a report on the Charles River watershed. It entails brief
synopses of what is being done in the development of water and
land resources in the area.

NERBC

Department of the Army, Corps of Engineers, Charles River Watershed
Study, Plan of Survey, August 30, 1967.

This plan of survey sets out the general procedures being followed
in developing a comprehensive plan for water and related land re-
sources for the Charles River watershed. Orientation, direction,
and coordination are indicated as well as the inter-relationships
and missions among the participants in the study.

Maps

Charles River Watershed 1 inch = 2.4 miles

NERBC

Massachusetts Department of Natural Resources, Cape Cod Planning
Program, March, 1963.

This study analyzes the existing public and private outdoor
recreational areas and facilities and recommends appropriate

action for the needs of 1970 and 1980.

NERBC

Massachusetts Department of Natural Resources, Massachusetts Outdoor Recreation Plan, 1966.

This study attempts to determine the future recreational resource needs for Massachusetts.

Maps

The Commonwealth of Massachusetts,
Department of Natural Resources,
Massachusetts Outdoor Recreation Plan 1 inch = 5.5 miles
NERBC

Massachusetts Department of Public Works,
Eastern Massachusetts Regional Planning Project
Recommended Highway and Transit Plan, 1968.

This report on transportation planning includes description and analysis of highway and transit networks within the region. These networks were developed from an inventory of data collected for the base year 1963 and forecast to the future year 1990. The report recommends a plan for specific transportation network improvements and the staging of required projects, provides cost estimates, and discusses the implications of the plan. The Eastern Massachusetts region consists of 152 cities and towns including Boston, Brockton, Lowell, Lawrence, Haverhill, portions of Worcester, Providence, Pawtucket, and the Fitchburg-Leominster metropolitan areas.

Maps

Maps of present and projected transportation patterns.

NERBC

Massachusetts Institute of Technology, The Harbor Islands Study Group,
The Harbor Islands, Boston Harbor Islands Commission, April 16, 1969.

This study gives a description of the environmental constraints on the development of the harbor islands; an enumeration of the regional needs to which development of the Islands might directly respond; a listing of the development of alternatives for the islands and the harbor space; and a description of the administrative procedures related to each development strategy.

MAPC

Metropolitan Area Planning Council, Open Space and Recreational Plan and Program for Metropolitan Boston - Volume 1.

This study sets forth plans for the future use of open land and recreational land in the Boston Metropolitan Area.

NERBC

Metropolitan Area Planning Council, Open Space and Recreation Program for Metropolitan Boston, Volume 3, The Mystic, Charles, and Neponset Rivers, April, 1969.

This study takes an intense look at the three rivers detailing their histories, present use, and recommended open space programs.

Maps

The Rivers Park System

No scale

Also included are a number of small maps representing close-ups of different areas.

NERBC

Metropolitan Area Planning Council, Open Space and Recreation Program for Metropolitan Boston, Volume 4, Massachusetts Open Space Law, April, 1969.

This is a study of the Boston metropolitan area's ability to control the use of its land in the interest of preserving open space. It does this by showing the government involvement in open space land control. Zoning and other laws concerning land use are detailed.

NERBC

Middlesex Conservation District, Natural Resources Study of the Town of Sherborn, Massachusetts, June, 1968.

This study sets forth the conservation and recreation potentials of the natural resources which exist within the town of Sherborn.

Maps

Natural resource maps

1 inch = .65 miles

NERBC

Rhode Island Department of Natural Resources, Plan for Recreation, Conservation, and Open Space, February, 1968.

This report includes an inventory of recreation, conservation, and open space resources, first-phase capacity and demand analyses, a policy statement on long range planning for recreation facilities, conservation areas, and open space, and a three year action program, 1968-1970.

Maps

Rhode Island recreation systems 1 inch = 5.7 miles

Rhode Island recreation, open space,
conservation inventory map, 1957 1 inch = 5.7 miles

RIWRB

Rhode Island Development Council, Recreation Guide Plan Supplement.

This report provides detailed maps showing the recreation areas of Rhode Island.

RIWRB

United States Department of Commerce, A Proposed Program for Scenic Roads and Parkways, June, 1966.

This report proposes a national program for developing scenic roads and parkways and provides state maps of specific proposals.

Maps

Massachusetts and Rhode Island map showing park sites, recreation areas, monuments, nature preserves, wilderness areas, beaches, wildlife areas, forests, foot trails, horse trails, bicycle trails, parkways, and national parks.

Massachusetts map 1 inch = 22 miles

Rhode Island map 1 inch = 7.5 miles

NERBC

United States Department of the Interior, Bureau of Sport Fisheries and Wildlife, Man and Nature in the City, October 21, 22, 1968.

This report is a review of a symposium held on the subject of man and nature in the city. It covers seven basic urban problems and needs including: human needs and the natural environment; nature and the urban dweller; nature in our cities; meeting urban wildlife needs; nature and the ghetto dwellers; the natural world of the new city; and urban youth and natural environments.

NERBC

United States Department of Transportation, Bureau of Public Roads, Southeastern Massachusetts Comprehensive Transportation and Arterial Systems, February, 1969.

This report describes the results of the analysis and forecasting of future travel and proposed long-range requirements for arterial highway and transit service.

Maps

28 maps of existing and proposed arterials.

United States Department of Transportation, Bureau of Public Roads, Worcester Urbanized Area Transportation Study, 1969.

This study makes an analysis of travel characteristics, shows basic travel inventories, forecasts future travel, and prepares a plan for transportation in the Worcester urbanized area to the year 1990.

Maps

93 maps on all aspects of travel in the Worcester urbanized area.

NERBC

University of Massachusetts, United States Department of Agriculture, Cooperative Extension Service, An Inventory and Interpretation: Selected Resources of the Island of Nantucket, 1966.

This study inventories selected resources on the Island, identifies resource complexes that have value greater than that of the individual resource, looks for relationships between the natural resource base and existing and/or future land use patterns, and identifies resources

individually or collectively which require some form of protection or management program for retention or enhancement of their intrinsic value.

Maps

Geology, topography, and groundwater	1 inch = 1.6 miles
Major vegetation types	1 inch = 1.6 miles
Habitat of selected game species	1 inch = 1.6 miles
Shorebirds, waterfowl, and eel grass	1 inch = 1.6 miles
Principal mollusk and crustacean areas	1 inch = 1.6 miles
Principal finfish areas	1 inch = 1.6 miles
Shoreline survey key map	1 inch = 1.6 miles
Storm damage and shoreline changes	1 inch = 1.6 miles
Circulation	1 inch = 1.6 miles
Land ownership pattern	1 inch = 1.6 miles
Historical and archeological sites	1 inch = 1.6 miles
Major biophysical resource areas	1 inch = 1.6 miles
Natural factors	
(as potential determinants of land use)	1 inch = 1.6 miles
Landscape types and values	1 inch = 1.6 miles

NERBC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Flood Control and Streamflow Management

Commonwealth of Massachusetts, Legislative Research Council,
Rights to Surface and Sub-Surface Water in Massachusetts,
February 13, 1957.

This report details the effects of the many and varied uses of water. It discusses water as to the water law in Massachusetts, water resources and riparian doctrines, uses of water, industry, agriculture, recreation, hydro-electric power, navigation, flood control, pollution, groundwater, management programs, and problems of water.

Maps

Points of past litigation in Massachusetts (1880-1955) 1 inch = 18 miles

Drainage basins in Massachusetts 1 inch = 18 miles

NERBC

Commonwealth of Massachusetts, Water Resources Commission, Coastal Flooding in Barnstable County, Cape Cod, Massachusetts, March, 1963.

This report provides coastal flood information and indicates the kinds of information available on coastal flooding and resultant damages.

Maps

Timing and sequence of high tides for selected stations 1 inch = 6 miles

Coastal flood plain map, Cape Cod, Massachusetts 1 inch = 2.5 miles

General map of coastal flood damage by rains 1 inch = 6 miles

Areas of major coastal flood damage, 1954 1 inch = 6 miles

NERBC

Department of the Army, Corps of Engineers, Past Flood Report for Flood of 18-25 March 1968 in New England, August, 1968.

This report reviews the flood according to its effect on hydrology, losses (damages), and emergency operations.

Maps

Water equivalent of snow coverage 4 March, 1968 1 inch = 30 miles

Isohyetal map storm of March 17-19, 1968 1 inch = 22 miles

NERBC

Department of the Army, Corps of Engineers, Project Maps - Flood Control, June 30, 1968.

This report includes copies of reservoir maps, general plans, and pumping stations for flood control projects in New England.

NERBC

Department of the Army, Corps of Engineers, Water Resource Development, Interim Report on Charles River for Flood Control and Navigation, Lower Charles River, May, 1968.

This report presents the results of studies with respect to flood control and navigation and it gives detailed consideration to the construction of a dam with locks and a pumping station at Warren Avenue, Boston, to alleviate flooding and improve navigation.

Maps

There are numerous maps in this report dealing with the subject of the Charles River.

NERBC

Department of the Army, Corps of Engineers, Water Resources Development in Massachusetts, January 1, 1969.

This report discusses the various water resource projects conducted in Massachusetts by the Army Corps of Engineers. These projects consist of works for navigation, flood control, shore protection, tidal flood protection, and other related purposes.

Maps

Authorized federal projects in Massachusetts	1 inch = 15 miles
River basins in Massachusetts	1 inch = 34 miles
Connecticut River Basin reservoir projects	no scale
Merrimack River Basin	1 inch = 16 miles
Flood control projects in the Thames River Basin	1 inch = 9 miles
Hurricanes affecting New England	1 inch = 65 miles
Blackstone River Basin flood control projects	1 inch = 5.8 miles

NERBC

Department of the Army, Corps of Engineers, Water Resources Development in Rhode Island, January 1, 1969.

This report discusses the various water resource projects developed in Rhode Island by the Army Corps of Engineers. These projects consist of works for navigation, flood control, shore protection, tidal flood protection, and other related purposes.

Maps

Authorized federal projects in Rhode Island	1 inch = 10 miles
Flood control projects Blackstone River Basin	1 inch = 5.8 miles
Hurricanes affecting New England	1 inch = 65 miles
Point Judith multiple-purpose project	1 inch = 4,000 feet

NERBC

New England Interstate Water Pollution Control Commission, Water Law Streamflow Rights in New England and New York State, November 1967.

This report describes the rights water front owners have to regulate streamflow or divert water for consumptive use, the public's rights and powers to use, own, regulate, and navigate these waterways, and federal jurisdiction over rivers and inland waters. It also suggests actions a created government agency can take to augment flows.

NERBC

United States Dept. of Agriculture, Watershed Work Plan, Pine Tree Brook Watershed, Norfolk Conservation District, Town of Milton, May 1968.

This report is a comprehensive study of the Pine Tree Brook Watershed and a project on it to help stop erosion, flooding and the problems caused by urban expansion.

Maps

Harland Wildlife Development

1 inch = 700 feet

Project map, Pine Tree Brook Watershed

1 inch = 2,000 feet

NERBC

United States Dept. of Agriculture, Plan of Work, Massachusetts Water Resources Study, May 1969.

This report provides a plan for the United States Department of Agriculture to work with the Massachusetts Water Resource Commission in collecting data for the Massachusetts Water Resource Study.

Maps

River basin study areas

(Massachusetts Water Resources Study)

1 inch = 13.3 miles

NERBC

United States Department of Agriculture, Economic Research Service, Natural Resource Economics Division, Water Resources Branch, Water Resources in New England and Related Areas, An Annotated Bibliography, Adam A. Sokoloski, August, 1969.

This report contains an annotated bibliography with some of the information pertaining to the Southeastern New England study area. The topics covered are: irrigation and soil moisture, water quality, floods, resource inventory, and management and planning.

NERBC

U.S. Department of the Interior, Flood of March, 1968, in Eastern Massachusetts and Rhode Island, 1970.

This report presents data on flood flows which will permit a hydrologic evaluation of the flood of 1968. Included in the report are the records of stage and discharge stations at 55 stream-gaging stations, 34 crest-stage stations, and 2 miscellaneous sites.

Maps

Map showing location of gage sites in flood-affected area.

Isohyetal map of Massachusetts and Rhode Island
showing precipitation in inches on March 17-19,
1968.

1 inch = 30 miles

NERBC

United States Department of the Interior, Federal Water Pollution Control Administration, Report on Immediate Water Pollution Control Needs in Interstate Water, New England River Basins, Southern Area, June, 1967.

This report discusses the water pollution control needs for the following basins: Merrimack River, Massachusetts Coastal, Narragansett Bay, Thames River, Connecticut River, Housatonic River, East Connecticut Coast, and Pawcatuck River.

Maps

Maps of each basin area showing locations of polluters and of present water quality.

NERBC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Water Quality Control

Commonwealth of Massachusetts, Special Report of the Department of Public Health Relative to the Preparation of Plans and Maps for the Disposal of Sewage in the Merrimack River Valley, June, 1969.

This report describes the watershed, the volume and characteristics of sewage, sanitary conditions, standards of water quality, the amount of treatment needed, and proposed methods of sewerage treatment in the Merrimack River Valley.

Maps

Merrimack River Basin	1 inch = 12 miles
Proposed sewage works	1 inch = 12 miles
Sampling stations	1 inch = 2 miles
Boring stations	1 inch = 2 miles
Lowell and vicinity portions of existing sewerage system and recommended sewage works	1 inch = 1800 feet
Lawrence and vicinity sewage system	1 inch = 1300 feet
Haverhill sewage system	1 inch = 1400 feet

MWRC

Commonwealth of Massachusetts, Legislative Research Council, Rights to Surface and Sub-Surface Water in Massachusetts, February 13, 1957.

This report details the effects of the many and varied uses of water. It discusses water as to the water law in Massachusetts, water resources and riparian doctrines, uses of water, industry, agriculture, recreation, hydroelectric power, navigation, flood control, pollution, groundwater, management programs, and problems of water.

Maps

Points of past litigation in Massachusetts (1880-1955)	1 inch = 18 miles
Drainage basins in Massachusetts	1 inch = 18 miles

Commonwealth of Massachusetts, Water Resources Commission,
Water Resources of Barnstable County, Cape Cod, Massachusetts,
July, 1963.

This is a comprehensive study of the water resources of Cape Cod. The report contains information on rainfall, groundwater, geology, an inventory of all ponds and reservoirs, present water usage, anticipated future water quality, and predicted total water needs.

Maps

Location of rainfall stations	1 inch = 5.5 miles
Elevation of bedrock	1 inch = 4 miles
Surficial geology and observation wells	1 inch = 4 miles
Location of lakes and reservoirs	1 inch = 4 miles
Areas served by public water systems	1 inch = 4 miles
Location of public sewerage systems	1 inch = 5.5 miles
Generalized hydrologic grouping of soil	1 inch = 9 miles

NERBC

Commonwealth of Massachusetts, Water Resources Commission,
Division of Water Pollution Control, Charles River Study, Part A -
Data Record on Water Quality, November, 1969.

This report lists the data obtained on a water quality survey of the Charles River.

Maps

Massachusetts	1 inch = 30 miles
Location of sampling stations and water quality classification, Charles River	1 inch = 4.7 miles

NERBC

Commonwealth of Massachusetts, Water Resources Commission,
Division of Water Pollution Control. Ipswich River Study 1968,
Part A, Data Record on Water Quality, December, 1969.

This report lists data obtained in a water quality survey of the Ipswich River.

Maps

Ipswich River Basin	1 inch = 7 miles
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NERBC

Commonwealth of Massachusetts, Water Resources Commission,
Division of Water Pollution Control, River Basin Classifications,
March 6, 1967.

Present and proposed classifications of water in Massachusetts are given with regard to public health, public enjoyment, propagation and protection of fish and wildlife, and economic and social development.

Maps

Blackstone River Basin	1 inch = 4.5 miles
Boston Harbor	1 inch = 2.5 miles
Charles River Basin	1 inch = 4.5 miles
Chicopee River Basin	1 inch = 12.5
Concord, Assabet, and Sudbury River Basins	1 inch = 4.5 miles
Connecticut River Basin	1 inch = 6.7 miles
Deerfield River Basin	1 inch = 4.5 miles
Farmington River Basin	1 inch = 4.5 miles
French River Basin	1 inch = 4.5 miles
Hoosic River Basin	1 inch = 4.5 miles
Housatonic River Basin	1 inch = 4.5 miles
Ipswich River Basin	1 inch = 6.7 miles
Kiekamuit, Warren, and Barrington River Basins	1 inch = 3 miles
Merrimack River Basin	1 inch = 5.3 miles
Millers River Basin	1 inch = 4.5 miles
Mystic River Basin	1 inch = 2.5 miles
Nashua River Basin	1 inch = 4.5 miles
Neponset River Basin	1 inch = 4.5 miles
North Coastal	1 inch = 6.7 miles
Parker River Basin	1 inch = 3.5 miles
Quinebaug River Basin	1 inch = 4.5 miles
Scantic River Basin	1 inch = 1.7 miles
Shawsheen River Basin	1 inch = 6.7 miles
South Coastal	1 inch = 6.7 miles
Taunton River Basin	1 inch = 4.5 miles
Ten Mile River Basin	1 inch = 2.7 miles
Westfield River Basin	1 inch = 4.5 miles
Weymouth River Basin	1 inch = 3 miles

NERBC

Commonwealth of Massachusetts, Water Resources Commission,
Division of Water Pollution Control. Ten Mile River, Part A,
Data Record on Water Quality, December, 1969.

This report consists of the data obtained from a water quality study of the Ten Mile River. In addition, the study contains an industrial waste survey.

Maps

Ten Mile River Basin

1 inch = 2.8 miles

NERBC

Commonwealth of Massachusetts, Water Resources Commission,
Division of Water Pollution Control. Water Quality Standards,
March 6, 1967.

A classification system is adopted for Massachusetts' waters to designate future usage with such factors as public health, public enjoyment, propagation and protection of fish and wildlife, and economic and social development considered.

NERBC

Department of the Army, Corps of Engineers, Interim Report on
Charles River for Flood Control and Navigation, Lower Charles
River, May, 1968.

This report presents results of studies with respect to flood control and navigation on the Charles River and gives detailed consideration to the construction of a dam with locks and a pumping station at Warren Avenue, Boston for flood protection and improvement to navigation. Also included is information on water quality and geology.

Maps

Charles River Shoreline (1814, 1836, 1881)

3 maps

1 inch = 1500 feet

Lower basin flood area

1 inch = 5300 feet

Charles River Watershed

1 inch = 2.3 miles

Study area

1 inch = 6700 feet

Plan and profile

1 inch = 5700 feet

Charles River Dam	1 inch = 140 feet
Charles River Basin elevation control (alternative sites)	1 inch = 280 feet
Charles River Basin elevation control (proposed dam)	1 inch = 60 feet
Charles River Basin and Environs	1 inch = 1500 feet
General relief map	1 inch = 900 feet
Surficial geology	1 inch = 2.7 miles
Bedrock geology	1 inch = 2.7 miles
Muddy River	1 inch = 1500 feet
Major navigation reach, facilities concerned with commercial and recreational boating	1 inch = 4000 feet
Sewers affecting Charles River water quality	(no scale)
Location of sampling stations	1 inch = 6500 feet

NERBC

Department of the Army, Corps of Engineers, New England Division,
Report by the United States Department of Health, Education and
Welfare, Effects of Proposed Hurricane Barriers on Water Quality
of Narragansett Bay, 1960.

This report determines whether the proposed lower bay barriers
will have any measurable effect on the quality of the waters of
Narragansett Bay.

Maps

Narragansett Bay	1 inch = 20,000 feet
Many maps of lower bay showing different effects	1 inch = 8,000 feet

NERBC

Department of the Army, North Atlantic Division, Corps of Engineers,
Feasibility Report on Alternative Regional Water Supply Plans for
Southeastern New England, November, 1969.

This report analyzes the Southeastern New England Region on a whole
to determine its future water requirements, the capability of indi-
vidual existing water supply systems, potential surface and ground-
water supplies, and requirements for proper project development.
It proposes individual basin projects and six alternative regional
plans with cost estimates for water supply development. It also
discusses project constraints and proposes a better monitoring
system for water supplies.

Maps

Southeastern New England water supply feasibility study area	1 inch = 15 miles
Service areas, major water supply systems	1 inch = 13 miles
Plan of Metropolitan District Commission water supply systems	1 inch = 6 miles
Maps of individual water supply systems	not to scale
Maps of each drainage basin in study area	
Maximum potential yield, groundwater resources	1 inch = 13 miles
Present stream water quality classifications	1 inch = 15 miles
Proposed stream water quality classifications	1 inch = 15 miles
Maps of proposed projects	
Alternative regional plans A to F for 1990 and combinations for 2020 (12 maps)	1 inch = 14 miles

NERBC

Department of the Army, North Atlantic Division, Corps of Engineers,
Appendices for Feasibility Report on Alternative Regional Water Supply Plans for Southeastern New England, November, 1969.

This report contains data pertaining to Southeastern New England on population, future water supply requirements, water quality, hydrology, flow requirements for water quality, groundwater resources, the basis of cost estimates, future technology, and projects considered that are not in the main report.

Maps

Maps of each county with population projections	no scale
Locations of water using industries (4 maps)	no scale
Map of Massachusetts and Rhode Island showing extent and saturated thickness of stratified drift and distribution of till	1 inch = 13 miles
Map of Massachusetts and Rhode Island showing rates of groundwater runoff to streams during a dry year	1 inch = 15 miles

Map of Massachusetts and Rhode Island showing areas
used for groundwater yield and cost analyses

1 inch = 13 miles

NERBC

Green Engineering Affiliates, Inc., Report on Sanitary Sewerage System
for the City of Peabody, Massachusetts, November, 1960.

This report covers the results of an engineering investigation
and study of the sanitation system in the city of Peabody, Massa-
chusetts, together with recommendations for the improvement of this
system.

Maps

Zoning plan 1 inch = 2000 feet

Major sewerage drainage areas
in West Peabody 1 inch = 2000 feet

Index plan 1 inch = 2000 feet

NERBC

Charles A. Maguire and Associates, Engineers, Report on Sewerage
Facilities for Stoughton, Massachusetts, January, 1963.

This report is a comprehensive study of the existing sewerage
system and offers a recommended construction program for
sewerage facilities in Stoughton.

Maps

Many small maps are included.

MAPC

Charles A. Maguire and Associates, Engineers, Sewerage and Drainage
Facilities for Cambridge, Massachusetts, 1968.

This study is a comprehensive survey of the sewerage system
in Cambridge and offers recommendations as to what new con-
struction should be done.

Maps

Numerous maps covering the Cambridge sewerage system
are included.

MAPC

Charles A. Maguire and Associates, Engineers, Sewerage and Drainage Facilities for Salem, Massachusetts, 1969.

This report is a comprehensive study of the sewerage and drainage facilities of Salem. The report has five major areas of discussion including population and land use, existing sewerage systems, development of design criteria, calculation of sanitary and storm flows, and recommended construction programs.

Maps

Many maps pertaining to the sewerage system are included.

MAPC

Metcalf and Eddy, Inc., Engineers, Report to South Essex, Sewerage Board, Salem, Massachusetts Upon Additions and Improvements to Sewerage Systems, March 6, 1969.

This report discusses the sewerage problems in Essex county, and its effects on the surrounding areas. In addition there is a comprehensive look at the pumping stations and interceptors in the area. It also makes suggestions for expansion and improvement of the present system.

MAPC

Camp, Dresser and McKee, Consulting Engineers, Report on Improvements to the Boston Main Drainage System, Volume I & II, September, 1967.

This report determines the adequacy of and recommends improvements to principal intercepting sewers and conduits in the Boston main drainage system.

Maps

Map of principal existing sewers and conduits

1 inch = 1600 feet

Map showing extent of sewer separation by wards

1 inch = 1600 feet

Principal existing sewers and conduits with recommended construction programs

1 inch = 1600 feet

MAPC

Camp, Dresser and McKee, Consulting Engineers, Report on Sewerage in Beverly, Massachusetts, October, 1965.

This report concerns itself with the provision of sanitary sewers and pumping facilities to serve areas presently unserved and to investigate the adequacy of the existing trunk sewers and interceptor systems.

MAPC

Metropolitan Area Planning Council, Projected Needs and Current Proposals for Water and Sewer Facilities, by Camp, Dresser and McKee, Consulting Engineers, July, 1969.

This study presents information relative to the adequacy of water and sewer facilities within the Council's district. Information included in the report pertains to recent improvements to public water supply and sewerage systems and current proposals to improve facilities. Also included are projections of water consumption and sewage flows.

Maps

Study area	1 inch = 10 miles
Special water districts	1 inch = 10 miles
Special sewerage districts	1 inch = 10 miles
River basin study areas	1 inch = 10 miles
Groundwater study areas	1 inch = 10 miles
Map 1 - water service areas	
Sheet 1: northeast sector	1 inch = 1.2 miles
Map 1 - water service areas	
Sheet 2: west sector	1 inch = 1.2 miles
Map 1 - water service areas	
Sheet 3: southeast sector	1 inch = 1.2 miles
Map 2 - sewer service areas	
Sheet 1: northeast sector	1 inch = 1.2 miles
Map 2 - sewer service areas	
Sheet 2: west sector	1 inch = 1.2 miles
Map 2 - sewer service areas	
Sheet 3: southeast sector	1 inch = 1.2 miles
Map 3 - water supply and sewage treatment facilities	
Sheet 1: northeast sector	1 inch = 1.2 miles
Map 3 - water supply and sewage treatment facilities	
Sheet 2: west sector	1 inch = 1.2 miles
Map 3 - water supply and sewage treatment facilities	
Sheet 3: southeast sector	1 inch = 1.2 miles

NERBC

Metropolitan Area Planning Council, Massachusetts Department of Commerce and Development, Water Supply and Sewage Disposal, Work Program, by Camp, Dresser and McKee, Consulting Engineer, December, 1966.

This report describes a unified approach for 152 communities surrounding and including Boston to develop an adequate water supply and the means of proper sewage disposal. It also provides an outline which proposes how to handle the arising problems.

MAPC

Public Health Service, Massachusetts Coastal Streams, 1952.

This report provides information concerning the use, pollution, results from abatement and prevention of pollution, pollution prevention methods now in effect, and those which are needed of water resources in the Massachusetts coastal area.

Maps

General reference map	1 inch = 15 miles
Existing primary water uses	1 inch = 15 miles
Sources of pollution and existing treatment plants	1 inch = 15 miles
Present stream conditions	1 inch = 15 miles
Projects required	1 inch = 15 miles
Sub-basin areas	1 inch = 15 miles

FWQA

Rhode Island Department of Health, Division of Water Pollution, Water Quality Standards for Interstate Waters, June, 1967.

This report details the water quality classifications of the interstate waters of Rhode Island. The report discusses water quality as a whole and then each water body is examined.

Maps

Proposed classification of water quality	1 inch = 1.65 miles
Present classification of water quality	1 inch = 1.65 miles

NERBC

United States Department of Agriculture, Economic Research Service,
Natural Resource Economics Division, Water Resources Branch,
Water Resources in New England and Related Areas, An Annotated
Bibliography, Adam A. Sokoloski, August, 1969.

This report contains an annotated bibliography with some of the
information pertaining to the Southeastern New England study area.
The topics covered are: irrigation and soil moisture, water
quality, floods, resource inventory, and management and planning.

NERBC

United States Department of Health, Education, and Welfare, 1962
Inventory -- Municipal Waste Facilities, 1962.

This report contains data for all sources of municipal pollution
which are of significance in water pollution control programs in
New England.

NERBC

United States Department of the Interior, Federal Water Pollution
Control Administration, Proceedings of Conference at Boston,
Massachusetts, In the Matter of Pollution of the Navigable Waters
of Boston Harbor and its Tributaries, April 30, 1969.

This report includes the proceedings of the conference on pollution
of Boston Harbor, dated April 30, 1969, and discusses sources
of pollution, garbage and refuse disposal, present water quality,
water currents, and the deep tunnel proposal. It also includes ap-
pendices with data on water quality, fish samples and climate.

Maps

Major municipal discharges	1 inch = 2 miles
Coliform classification standards (summer 1968)	1 inch = 2 miles
Coliform values (summer 1968)	1 inch = 2 miles
Location of areas with dissolved oxygen levels below those set by standards	1 inch = 2 miles
Dissolved oxygen (summer 1968)	1 inch = 2 miles
Station locations (1967)	1 inch = 2 miles
Dredging by Corps of Engineers- United States Army and Commonwealth of Massachusetts (Sept. 1967 - Aug. 1968)	1 inch = 2 miles

Mean total orthophosphate concentrations, high tide	
(summer 1968)	1 inch = 1.9 miles
Mean total orthophosphate concentrations, low tide	
(summer 1968)	1 inch = 2 miles
Mean nitrate-nitrogen concentration, high tide	
(summer 1968)	1 inch = 2 miles
Mean nitrate-nitrogen concentration, low tide	
(summer 1968)	1 inch = 2 miles
Temperature degrees centigrade, 2 ft. depth, mean low	
tide (summer 1968)	1 inch = 1.9 miles
Temperature degrees centigrade, 2 ft. depth, mean mid	
tide (summer 1968)	1 inch = 1.9 miles
Temperature degrees centigrade, 2 ft. depth, mean high	
tide (summer 1968)	1 inch = 1.9 miles
Station locations (1968)	1 inch = 2 miles
Salinity percentages, 2 ft. depth, mean low tide	
(summer 1968)	1 inch = 1.9 miles
Salinity percentages, 2 ft. depth, mean mid tide	
(summer 1968)	1 inch = 1.9 miles
Droge study (Oct. 1968)	1 inch = 1.9 miles
Location of current meters	1 inch = 1.9 miles

NERBC

United States Department of the Interior, Federal Water Pollution Control Administration, Proceedings of Conference at Boston, Massachusetts, Pollution of the Navigable Waters of Boston Harbor and its Tributaries, May 20, 1968.

This report includes the proceedings of the conference on pollution of Boston Harbor, dated May 20, 1968, and discusses the pollution of Boston Harbor within five major categories; sources of pollution; effects of pollution on water uses; present water quality; pollution control agencies; and recommendations for pollution control.

Maps

Boston Harbor, classification	1 inch = 2 miles
Major waste discharges and average coliform densities	1 inch = 2 miles
Classification of shellfish areas	1 inch = 2 miles
Polychaete worms, Boston Harbor	1 inch = 2 miles
Phytoplankton, Boston Harbor	1 inch = 2 miles
Boston Harbor	1 inch = 1.4 miles

NERBC

United States Department of the Interior, Federal Water Pollution Control Administration, Summary of Water Quality Evaluation, Boston Harbor and Tributaries, July and August, 1967.

This report presents the results of an investigation to test the dissolved oxygen content of the waters, the number of coliform and salmonella bacteria, the level of suspended solids, color and turbidity of the waters and nitrogen and phosphorus concentrations.

Maps

Charles River Watershed

1 inch = 3.2 miles

MWRC

United States Department of the Interior, Federal Water Pollution Control Administration, Report on Immediate Water Pollution Control Needs in Interstate Water, New England River Basins, Southern Area, June, 1967.

This report discusses the water pollution control needs for the following basins: Merrimack River, Massachusetts Coastal, Narragansett Bay, Thames River, Connecticut River, Housatonic River, East Connecticut Coast, and Pawtuck River.

Maps

Maps of each basin area showing locations of polluters and of present water quality.

NERBC

United States Department of the Interior, Federal Water Pollution Control Administration, Report on Pollution of the Navigable Waters of Boston Harbor, May, 1968.

This report discusses the pollution of Boston Harbor within five major categories: sources of pollution; effects of pollution on water uses; present water quality; pollution control agencies; and recommendations for pollution control.

Maps

Boston Harbor, classification

1 inch = 2 miles

Major waste discharges and average
coliform densities
Classification of shellfish areas
Polychaete worms, Boston Harbor
Phytoplankton, Boston Harbor
Boston Harbor

1 inch = 2 miles
1 inch = 2 miles
1 inch = 2 miles
1 inch = 2 miles
1 inch = 1.4 miles

NERBC

United States Geological Survey, Water Resources Investigations
in Rhode Island, April 1, 1963.

This report describes the hydrologic data network of
Rhode Island which encompasses streamflow stations,
groundwater observation wells, and quality of water observations.

RIWRB

Whitman and Howard. Report on Pollution Abatement Facilities and
Extensions to the Sewerage System, Town of Rockport, Massa-
chusetts, August, 1968.

This study details the existing sewerage system for Rockport
and offers proposals for improvements and the costs of these
improvements.

Maps

Overall plan for improvement
Phase plan for improvement to the
sewerage system

1 inch = 1500 feet
1 inch = 1500 feet

NERBC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Groundwater Management

Commonwealth of Massachusetts, Legislative Research Council,
Rights to Surface and Sub-Surface Water in Massachusetts,
February 13, 1957.

This report details the effects of the many and varied uses of water. It discusses water as to the water law in Massachusetts, water resources and riparian doctrines, uses of water, industry, agriculture, recreation, hydro-electric power, navigation, flood control, pollution, groundwater, management programs, and problems of water.

Maps

Points of past litigation in Massachusetts (1880-1955)

1 inch = 18 miles

Drainage basins in Massachusetts

1 inch = 18 miles

NERBC

Commonwealth of Massachusetts, Water Resources Commission,
Special Report on Groundwater Resources in the Mattapoissett River Valley, May 1960.

This report describes the geologic and hydrologic conditions controlling the occurrence of groundwater in the drainage basin of the Mattapoissett River, and discusses several of the factors that should be considered in the development of additional groundwater supplies in that area.

MWRC

Department of the Army, North Atlantic Division, Corps of Engineers,
Feasibility Report on Alternative Regional Water Supply Plans for Southeastern New England, November, 1969.

This report analyzes the Southeastern New England Region on a whole to determine its future water requirements, the capability of individual existing water supply systems, potential surface and groundwater supplies, and requirements for proper project

development. It proposes individual basin projects and six alternative regional plans with cost estimates for water supply development. It also discusses project constraints and proposes a better monitoring system for water supplies.

Maps

Southeastern New England water supply feasibility
study area 1 inch = 15 miles
Service areas, major water supply systems
1 inch = 13 miles
Plan of Metropolitan District Commission water supply system
1 inch = 6 miles
Maps of individual water supply systems
not to scale
Maps of each drainage basin in study area
Maximum potential yield, groundwater resources
1 inch = 13 miles
Present stream water quality classifications
1 inch = 15 miles
Proposed stream water quality classifications
1 inch = 15 miles
Maps of proposed projects
Alternative regional plans A to F for 1990 and combinations for
2020 (12 maps) 1 inch = 14 miles
NERBC

Department of the Army, North Atlantic Division, Corps of Engineers,
Appendices for Feasibility Report on Alternative Regional Water
Supply Plans for Southeastern New England, November, 1969.

This report contains data pertaining to Southeastern New England on population, future water supply requirements, water quality, hydrology, flow requirements for water quality, groundwater resources, the basis of cost estimates, future technology, and projects considered that are not in the main report.

Maps

Maps of each county with population projections
no scale
Locations of water using industries (4 maps)
no scale
Map of Massachusetts and Rhode Island showing extent and
saturated thickness of stratified drift and distribution of till
1 inch = 13 miles

Map of Massachusetts and Rhode Island showing rates of groundwater runoff to streams during a dry year

1 inch = 15 miles

Map of Massachusetts and Rhode Island showing areas used for groundwater yield and cost analyses

1 inch = 13 miles

NERBC

Charles A. Maguire and Associates, Groundwater Situation-Recommended Program for the Development of the Big and Wood River Reservoirs and Waterworks Improvements for the Providence Water Service Area, March, 1968.

This report summarizes the groundwater situation within and adjoining the present Providence water supply service area.

Maps

Water service areas 1 inch = 8 miles

Water study areas of Rhode Island 1 inch = 8 miles

Aquifers of Rhode Island 1 inch = 8 miles

RIWRB

Camp, Dresser and McKee, Consulting Engineers, Comprehensive Groundwater Investigation and Distribution System Study for the Town of Stoughton, Massachusetts, April, 1969.

This report is a comprehensive study of the water supply for the town of Stoughton. It is broken up into the following sections: Comprehensive groundwater investigation, alternate water supply facilities, distribution system study, and recommended improvements.

Maps

Groundwater geology, Stoughton 1 inch = 2000 feet

Plan of existing water distribution system

1 inch = 900 feet

Groundwater investigation 1 inch = 1500 feet

MAPC

Metropolitan Area Planning Council, Projected Needs and Current
Proposals for Water and Sewer Facilities, by Camp, Dresser
and McKee, Consulting Engineers, 1969.

This study presents information relative to the adequacy of water and sewer facilities within the Council's district. Information included in the report pertains to recent improvements to public water supply and sewerage systems and current proposals to improve facilities. Also included are projections of water consumption and sewage flows.

Maps

Study area	1 inch = 10 miles
Special water districts	1 inch = 10 miles
Special sewerage districts	1 inch = 10 miles
River basin study areas	1 inch = 10 miles
Groundwater study areas	1 inch = 10 miles
Map 1-water service areas	
Sheet 1-northeast sector	1 inch = 1.2 miles
Map 1-water service areas	
Sheet 2-west sector	1 inch = 1.2 miles
Map 1-water service areas	
Sheet 3-southeast sector	1 inch = 1.2 miles
Map 2-sewer service areas	
Sheet 1-northeast sector	1 inch = 1.2 miles
Map 2-sewer service areas	
Sheet 2-west sector	1 inch = 1.2 miles
Map 2-sewer service areas	
Sheet 3-southeast sector	1 inch = 1.2 miles
Map 3-water supply and sewage treatment facilities	
Sheet 1-northeast sector	1 inch = 1.2 miles
Map 3-water supply and sewage treatment facilities	
Sheet 2-west sector	1 inch = 1.2 miles
Map 3-water supply and sewage treatment facilities	
Sheet 3-southeast sector	1 inch = 1.2 miles

NERBC

Rhode Island Development Council, Groundwater Conditions in the Vicinity of Mashapaig Pond, Providence, Rhode Island, 1947.

This study is on the groundwater and geology resources of the area.

RIWRB

Rhode Island Development Council, Groundwater Resources in the Vicinity of Exeter, Rhode Island, 1948.

This study attempts to determine the quantity and quality of existing groundwater supplies and to locate areas favorable for more extensive development.

RIWRB

Rhode Island Development Council, Groundwater Resources of Bristol, Warren and Barrington, Bristol County, Rhode Island, 1950.

This is a report on the geology and groundwater resources of the area.

Maps

Preliminary map of Bristol County, Rhode Island
Planning glacial geology and location of wells

1 inch = 6 miles

RIWRB

Rhode Island Development Council, Groundwater Resources of Rhode Island, 1953.

This report ascertains areas capable of supplying large quantities of water for industrial and municipal development; determines which of the readily available supplies are not being fully utilized; and observes the trend of water levels in the wells in order to determine where the ground-water resources of the state are being depleted and where they can be further developed.

Maps

Map of Rhode Island showing the location of groundwater areas, selected wells and test borings, and stream gaging stations.

1 inch = 2 miles

RIWRB

Rhode Island Water Resources Coordinating Board, Appraisal of the Groundwater Reservoir Areas in Rhode Island, 1961.

This study evaluates sizes of the groundwater reservoirs quantities of water available for replenishing the reservoir, present development of the water resources in the area, and possible future large-scale groundwater withdrawals.

Maps

Out wash of Upper Branch River area	1 inch = .6 miles
Out wash in groundwater reservoir areas in Northeast Rhode Island	1 inch = 1 mile
Out wash in Central Rhode Island	1 inch = 1 mile
	RIWRB

United States Department of Interior, Water Data for Metropolitan Areas, 1968.

Included in this report is data on size and population, a statement of the hydrology of the area, a summary of current data--collection activities in the area, a listing of current U.S. Geological Survey investigational projects in the area, and a short listing of reports relating to the hydrology of the area for the following Metropolitan districts: Boston, Brockton, New Bedford, and Fall River, and Worcester.

NERBC

United States Department of the Interior, Geological Survey, Geology and Ground-Water Conditions in the Wilmington-Reading Area, Massachusetts, 1964.

This report covers the first phase of investigation of water resources in the Ipswich River Basin.

Maps

Map of Wilmington-Reading area showing generalized surficial geology	1 inch = .5 miles
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United States Department of the Interior, Geological Survey, Groundwater Conditions in the Hunt River Basin, Rhode Island - April 1960, November 1960.

This report describes the geologic and hydrologic conditions controlling the occurrence of ground-water in the Hunt River Drainage Basin.

RIWRB

United States Department of the Interior, Geological Survey,
Massachusetts Basic-Data Report No. 1, Ground-Water
Series, Wilmington-Reading Area, 1961.

This study contains records and logs of selected wells and test holes, chemical analyses of water and water levels in observation wells in the Wilmington-Reading area.

Maps

Map of Wilmington-Reading area showing locations of selected wells, test holes and springs 1 inch = .5 miles
NERBC

United States Department of the Interior, Geological Survey,
Massachusetts Basic-Data Report No. 2, Ground-Water
Series, Lower Ipswich River Drainage Basin, 1962.

This study contains records of wells, materials tests and chemical analyses of water in the lower Ipswich River Basin.

Maps

Maps of Ipswich River drainage basin showing Wilmington-Reading area selected wells, test holes and springs below the stream gaging station at South Middleton
1 inch = .5 miles
NERBC

United States Department of the Interior, Geological Survey, Massachusetts Basic-Data Report No. 4, Ground-Water Series, Parker and Rowley River Basins, 1962.

This report contains records of wells, materials tests and chemical analyses of water in the Parker and Rowley River Basins.

Maps

Map of Parker and Rowley River drainage basins showing locations of selected test holes and wells
1 inch = 4 miles
NERBC

United States Department of the Interior, Geological Survey,
Massachusetts Basic-Data Report No. 5, Ground-Water
Series, Brockton-Pembroke Area, 1962.

This study shows records of selected wells, test holes, ponds,
and streams in the Brockton-Pembroke area.

Maps

Map of Brockton-Pembroke area showing locations of
selected wells, test holes and stream gaging stations.

1 inch = .5 miles

NERBC

United States Department of the Interior, Geological Survey,
Massachusetts Basic-Data Report No. 7, Ground-Water
Series, Southeastern Massachusetts, 1963.

This study contains records and logs of selected wells and
test holes and chemical analyses of water in Southeastern
Massachusetts.

Maps

Map of Southeastern Massachusetts showing locations of wells
and test holes and areas underlain by hill and stratified
deposits.

1 inch = 2 miles

NERBC

United States Department of the Interior, Geological Survey,
Massachusetts Basic-Data Report No. 10, Ground-Water
Series, Northern Part, Ten Mile and Taunton River Basins,
1967.

This study contains records of wells, test holes, borings,
seismic data, municipal water systems, and chemical
analyses of water in the northern part of the Ten Mile
and Taunton River Basins, 1967.

Maps

Map of the northern part, Ten Mile and Taunton River Basins,
showing sites of hydrologic data.

1 inch = .5 miles

NERBC

United States Department of the Interior, Geological Survey,
Water Resources of the Ipswich River Basin, Massachusetts,
1966.

This report details the water resources of the Ipswich River Basin, covering geology, hydrology and water resources development.

Maps

Location of the Ipswich River Basin	1 inch = 45 miles
Map and section showing surficial geology and depths to bedrock in the Ipswich River Basin	1 inch = .5 miles
Map showing availability of ground water and location of municipal water supplies, selected wells and stream gaging stations in the Ipswich River Basin	1 inch = 1 mile

NERBC

United States Geological Survey, Water Resource Investigations in Rhode Island, April 1, 1963.

This report describes the hydrologic data network of Rhode Island which encompasses streamflow stations, groundwater observation wells, and quality of water observations.

RIWRB

University of Rhode Island, Geophysical Resistivity Study of the Groundwater Characteristics of Glacial Deposits, Block Island, Rhode Island, by Fisher, July, 1969.

This study attempts to correlate hydrologic characteristics of glacial deposits with resistivity data to develop suitable criteria for determining the groundwater supply potential of glacial deposits.

RIWRB

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Land Use Patterns, Allocations, and Management

Cape Cod Planning and Economic Development Commission, Review of Prior Regional Research and Planning Studies for Cape Cod, November 1968.

This report capitulates the finding of a 701 Planning Study and represents a comprehensive plan for the Cape. It is organized into four basic sections; population and economic base; development factors such as topography, existing development and transportation; a land use plan; and an outline for action to implement the planning recommendations.

NERBC

Central Merrimack Valley Planning District, Massachusetts Department of Commerce, Future Development in the Central Merrimack Valley, by Planning Services Group Consultants, August, 1962.

This study provides a recommended plan for the future development of the Central Merrimack Valley. A regional development policy, plan and program are included.

Maps

Central Merrimack Valley regional relationships	1 inch = 8 miles
Central Merrimack Valley	1 inch = 8 miles
The circumferential highway	1 inch = 8 miles
Open spaces and recreation plan	1 inch = 8 miles
Land development factors	1 inch = 8 miles
Regional development plan	1 inch = 8 miles

NERBC

Central Merrimack Valley Planning District, Massachusetts
Department of Commerce, Guiding Land Development
in the Central Merrimack Valley, by Planning Services
Group, Consultants, February 1964.

This study investigates method of implementing the
policies and the development plan set forth in a report,
entitled Future Development in the Central Merrimack
Valley.

NERBC

Central Merrimack Valley Planning District, Massachusetts
Department of Commerce, Transportation Prospects in
the Central Merrimack Valley, by Planning Services
Group, Consultants, January, 1962.

This study examines the transportation system of the
Central Merrimack Valley. The report is broken down
into five sections including inter-regional highway system,
expressway access to regional centers, public trans-
portation, and recommendations for action.

Maps

New England highway system	1 inch = 36.25 miles
Major expressways, greater Boston (1961)	1 inch = 6.16 miles
Selected traffic volumes, Central Merrimack Valley (1960)	1 inch = 8,000 feet
Chapter 90 road activity Central Merrimack Valley (1955-60)	1 inch = 8,000 feet
Major traffic generator, Central Merrimack Valley	1 inch = 8,000 feet
Circumferential expressway patterns Central Merrimack Valley	1 inch = .9 miles
Proposed interchange at Marston Street	(aerial view)

Buslines and service lines,	1 inch = 8,000 feet
railroad system Central	
Merrimack Valley (1961)	
New England airport system	1 inch = 33.3 miles

NERBC

Central Merrimack Valley Regional Planning District Commission,
Toward More Effective Regional Planning, November, 1966.

The major topics of this study are land use reference, land use revision, assistance to regional community groups, advisory legislative services, highway impact techniques, and administrative structure.

Maps were only enclosed in original submission.

NERBC

Commonwealth of Massachusetts, Department of Natural Resources
and Association of Conservation Commissions, Massachusetts
Conservation Commission Handbook, 1968.

This report defines what a Conservation Commission is and discusses the following: operation of a commission; conservation districts and their federal programs; how to acquire and maintain land; easements for conservation; taxation and conservation; state programs; federal grant programs; zoning and other police powers; and private conservation corporations, trusts and clubs.

NERBC

Rhode Island, Statewide Comprehensive Transportation and Land Use
Planning Program, Annual Report, (third), April, 1967.

This study reviews the activities of the past year (1966), assesses the progress made toward the program's goals, and looks ahead to the work of the coming two or three years.

NERBC

Rhode Island, Statewide Comprehensive Transportation and
Land Use Planning Program, Annual Report, (fourth)
April, 1968.

This study reviews the activities of the past year (1967),
assesses the progress made toward the program's goals,
and looks ahead to the work of the coming two or three
years.

NERBC

University of Massachusetts, United States Department of
Agriculture, Cooperative Extension Service, An Inventory
and Interpretation: Selected Resources of the Island of
Nantucket, 1966.

This study inventories selected resources on the Island,
identifies resource complexes that have value greater than
that of the individual resource, looks for relationships
between the natural resource base and existing and/or future
land use patterns, and identifies resources individually or
collectively which require some form of protection or manage-
ment program for retention or enhancement of their intrinsic
value.

Maps

Geology, topography, and groundwater	1 inch = 1.6 miles
Major vegetation types	1 inch = 1.6 miles
Habitat of selected game species	1 inch = 1.6 miles
Shorebirds, waterfowl, and eel grass	1 inch = 1.6 miles
Principal mollusk and crustacean areas	1 inch = 1.6 miles
Principal finfish areas	1 inch = 1.6 miles
Shoreline survey key map	1 inch = 1.6 miles
Storm damage and shoreline changes	1 inch = 1.6 miles
Circulation	1 inch = 1.6 miles
Land ownership pattern	1 inch = 1.6 miles
Historical and archeological sites	1 inch = 1.6 miles
Major biophysical resource areas	1 inch = 1.6 miles
Natural factors (as potential determinants of land use)	1 inch = 1.6 miles
Landscape types and values	1 inch = 1.6 miles

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Wetlands Management

Commonwealth of Massachusetts, Report of the Department of Natural Resources Relative to the Coastal Wetlands in the Commonwealth, January 1964.

This report attempts to specifically denote priority and marginal coastal wetland areas based upon key values, and to suggest a sound approach to their acquisition and protection.

MWRC

Commonwealth of Massachusetts, Special Report of the Department of Natural Resources, Relative to the Advisability of Preserving the Wetlands of the Neponset River Valley for Certain Purposes, January 1964.

This report discusses the tidal lands, the Fowl Meadow, and the uplands of the Neponset River Valley.

Maps

Drainage basins of Massachusetts	1 inch = 22 miles
Limited access highways	1 inch = 15 miles
Proposed Fowl Meadow land use	1 inch = 15 miles

Commonwealth of Massachusetts, Department of Natural Resources Division of Marine Fisheries, A Study of the Marine Resources of Beverly-Salem Harbor, March 1967.

This study details the resources of the Beverly-Salem Harbor. It is broken up into the following parts: physical and chemical characteristics; finfish; shellfish; the lobster industry; marine vegetation; economic values; and recommendations for pollution control, protection of wetlands, and additional studies.

Maps

Sampling station location in Beverly Salem Harbor, 1965	1 inch = 2,000 yards
Outline map of Beverly-Salem showing depth contours at mean low water	1 inch = 2,000 yards

Outline map of Beverly-Salem Harbor 1 inch = 2,000 yards
Basin

NERBC

Commonwealth of Massachusetts, Department of Natural Resources,
Division of Marine Fisheries, A Study of the Marine Resources
of the Merrimack River Estuary, June, 1965.

This study details the resources of the Merrimack River Estuary. It is broken up into the following parts: physical and chemical characteristics; finfish; the shellfishery; lobsters and crabs; flora; economic values; and recommendations for pollution control, enhancement of the shellfish industry, additional studies, and the establishment of a commission to protect the estuary.

Maps

Sampling station locations in the no scale
Merrimack River Estuary, 1964

Outline map of the Merrimack 1 inch = 1,600 yards
River Estuary showing depth
contours at mean low water

Profiles showing the cross- 1 inch = 800 yards
sectional outline of the
Merrimack River Estuary
Basin at mean high water

NERBC

Commonwealth of Massachusetts, Department of Natural Resources,
Division of Marine Fisheries, A Study of the Marine Resources
of the North River, May, 1966.

This study evaluates the type, extent, and value of the marine resources in the North River and recommends measures which would protect and improve the status of these resources.

MWRC

Commonwealth of Massachusetts, Department of Natural Resources,
Division of Marine Fisheries, A Study of the Marine Resources
of the Parker River - Plum Island Sound Estuary, March, 1968.

This study determines the type, status and value of the resources of the estuary and gives data concerning the physical and chemical characteristics which affect them.

Maps

Sampling station locations in the Parker River-Plum
Island Sound Estuary, 1965 1 inch = 1.33 miles

Outline of the Parker River-Plumb Island
Sound Estuary showing depth 1 inch = 2,000 yards
contours at mean low water

MWRC

Commonwealth of Massachusetts, Department of Natural Resources,
Division of Marine Fisheries, A Study of the Marine Resources
of Pleasant Bay, May, 1967.

This study details the resources of Pleasant Bay. It is broken up into the following parts: physical and chemical characteristics; finfish; the shellfisheries; the tidemarshes; economic values; and recommendations for pollution regulation, protection of the environment of shellfisheries, and for additional studies.

Maps

Outline map of the Pleasant Bay Estuary 1 inch = 2,000 yards

Profiles showing cross sectional outlines 1 inch = 2,000 yards

NERBC

United States Department of the Interior, Permanent Water Areas
of Significance to Waterfowl in Massachusetts, February, 1957.

This report summarizes the data obtained during a waterfowl habitat inventory. All permanent water areas over 20 acres in size were considered.

Maps

Massachusetts permanent water areas of importance to
waterfowl 1 inch = 20 miles

MF&G

United States Department of the Interior, Permanent Water Areas
of Significance to Waterfowl in Rhode Island, January, 1956.

This report summarizes the data obtained during a waterfowl habitat inventory. Only those water bodies that are of significance to waterfowl are covered.

Maps

Rhode Island permanent water areas of importance to waterfowl
1 inch = 9 miles

MF&G

United States Department of the Interior, Supplementary Report on the
Coastal Wetlands Inventory of Massachusetts, June, 1965.

This report tabulates the acreage of about 90% of the states coastal wetlands located in Barnstable, Dukes, Essex, Nantucket, Plymouth, and Suffolk Counties and compares the results to similar inventories taken in 1954 and 1959 to determine the acreage lost in the period. The report also covers the causes of these losses and the number of acres which are vulnerable to loss now or in the future.

NERBC

United States Department of the Interior, Supplementary Report
on the Coastal Wetlands Inventory of Rhode Island, June, 1965.

This report tabulates the acreage of 24 coastal wetlands located in Bristol, Newport, and Washington Counties (about 90% of the state's coastal wetland areas) and compares the results to similar inventories taken in 1954 and 1959 to determine the acreage of wetlands lost in the period. The report also covers the causes of these losses and the number of acres which are vulnerable to loss now or in the future.

NERBC

United States Department of the Interior, Wetlands of Massachusetts,
October, 1959.

This study describes wetland types, waterfowl values of wetland types, contribution of wetland types to other wildlife, land use changes affecting wetlands, and improvement of wetlands for wildlife.

Maps

Physiographic regions in Massachusetts

1 inch = 22 miles

Massachusetts wetlands inventory

1 inch = 9 miles

MWRC

University of Massachusetts, United States Department of Agriculture,
Cooperative Extension Service, An Inventory and Interpretation:
Selected Resources of the Island of Nantucket, 1966.

This study inventories selected resources on the Island, identifies resource complexes that have value greater than that of the individual resource, looks for relationships between the natural resource base and existing and/or future land use patterns, and identifies resources individually or collectively which require some form of protection or management program for retention or enhancement of their intrinsic value.

Maps

Geology, topography, and groundwater	1 inch = 1.6 miles
Major vegetation types	1 inch = 1.6 miles
Habitat of selected game species	1 inch = 1.6 miles
Shorebirds, waterfowl, and eel grass	1 inch = 1.6 miles
Principal mollusk and crustacean areas	1 inch = 1.6 miles
Principal finfish areas	1 inch = 1.6 miles
Shoreline survey key map	1 inch = 1.6 miles
Storm damage and shoreline changes	1 inch = 1.6 miles
Circulation	1 inch = 1.6 miles
Land ownership pattern	1 inch = 1.6 miles
Historical and archeological sites	1 inch = 1.6 miles
Major biophysical resource areas	1 inch = 1.6 miles
Natural factors (as potential determinants of land use)	1 inch = 1.6 miles
Landscape types and values	1 inch = 1.6 miles

NERBC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Sediment and Erosion

Department of the Army, Corps of Engineers, Beach Erosion Control Report on Cooperative Study of Cape Cod Canal to Provincetown, Massachusetts, October, 1959.

This study attempts to determine the best method of shore stabilization and protection for the north shore of Cape Cod from Cape Canal in Sandwich to Race Point in Provincetown.

Maps

General map 1 inch = 2,000 feet

Survey map 1 inch = 2,400 feet

Shoreline and offshore depth changes
1 inch = 2,500 feet

MWRC

Department of the Army, Corps of Engineers, Beach Erosion Control Report on Cooperative Study of Revere and Nantasket Beaches, Massachusetts, March, 1968.

This study reviews the problems of Revere and Nantasket Beaches and attempts to determine the best methods of restoring and protecting the beach developments.

Maps

Location map of Nantasket and Revere Beaches
1 inch = 2,000 feet

Survey map, Revere Beach 1 inch = 750 feet

Survey map, Nantasket Beach 1 inch = 750 feet

Comparative profiles, Revere Beach
1 inch = 600 feet

Comparative profiles, Nantasket Beach
1 inch = 600 feet

Shoreline and off-shore changes, Revere Beach
1 inch = 2,400 feet

Shoreline and off-shore changes, Nantasket Beach
1 inch = 2,400 feet

Plan of protection, Revere Beach	1 inch = 750 feet
Plan of protection, Nantasket Beach	1 inch = 750 feet

NERBC

Department of the Army, Corps of Engineers, Clark Point, New Bedford, Massachusetts, Beach Erosion Control Study, September 1962.

This study attempts to determine the best method of restoration and stabilization of the city beaches along Rodney French Boulevard on the east and west sides of the Clark Point peninsula.

Maps

Survey map	1 inch = 650 feet
Shoreline changes, Clark Point	1 inch = 2,500 feet
Plan of protection	1 inch = 650 feet

MWRC

United States Department of Agriculture, Watershed Work Plan, Pine Tree Brook Watershed, Norfolk Conservation District, Town of Milton, May 1968.

This report is a comprehensive study of the Pine Tree Brook Watershed and a project on it to help stop erosion, flooding and the problems caused by urban expansion.

Maps

Harland wildlife development	1 inch = 700 feet
Project map, Pine Tree Brook Watershed	1 inch = 2,000 feet

NERBC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Estuarine and Coastal Studies

Commonwealth of Massachusetts, Report of the Special Commission Directed to Study the Use of Certain Lands and Water in the Commonwealth for Recreational Purposes, December 6, 1933.

This report describes those lands and waters owned by the Commonwealth under the control of the Department of Natural Resources, and also ocean frontage and great ponds which are not subject to private ownership, those owned by the Commonwealth and under the control of the Metropolitan District Commission, and those under the control of any political subdivision of the Commonwealth.

MWRC

Commonwealth of Massachusetts, Department of Natural Resources, Division of Marine Fisheries, A Study of the Marine Resources of Beverly-Salem Harbor, March, 1967.

This study details the resources of the Beverly-Salem Harbor. It is broken up into the following parts: physical and chemical characteristics: finfish; shellfish; the lobster industry; marine vegetation; economic values; and recommendations for pollution control, protection of wetlands, and additional studies.

Maps

Sampling station location in Beverly-Salem Harbor, 1965

1 inch = 2,000 yards

Outline map of Beverly-Salem Harbor showing depth contours at mean low water

1 inch = 2,000 yards

Outline map of Beverly-Salem Harbor basin at mean high water

1 inch = 2,000 yards

NERBC

Commonwealth of Massachusetts, Department of Natural Resources, Division of Marine Fisheries, A Study of the Marine Resources of the Merrimack River Estuary, June, 1965.

This study details the resources of the Merrimack River Estuary. It is broken up into the following parts: physical and chemical characteristics: finfish; the shellfishery; lobsters and crabs; flora; economic values; and recommendations for pollution control, enhancement of the shellfish industry, additional studies, and the establishment of a commission to protect the estuary.

Maps

Sampling station locations in the Merrimack River Estuary, 1964

Outline map of the Merrimack River Estuary showing depth contours at mean low water

1 inch = 1,600 yards

Profiles showing the cross-sectional outline of the Merrimack River Estuary basin at mean high water

1 inch = 800 yards

NERBC

Commonwealth of Massachusetts, Department of Natural Resources, Division of Marine Fisheries, A Study of the Marine Resources of the North River, May, 1966.

This study evaluates the type, extent, and value of the marine resources in the North River and recommends measures which would protect and improve the status of these resources.

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Commonwealth of Massachusetts, Department of Natural Resources, Division of Marine Fisheries, A Study of the Marine Resources of the Parker River - Plum Island Sound Estuary, March, 1968.

This study determines the type, status and value of the resources of the estuary and gives data concerning the physical and chemical characteristics which affect them.

Maps

Sampling station locations in the Parker River-Plum Island Sound Estuary, 1965

1 inch = 1.33 miles

Outline of the Parker River- Plum Island Sound Estuary showing depth contours at mean low water

1 inch = 2,000 miles

MWRC

Commonwealth of Massachusetts, Department of Natural Resources, Division of Marine Fisheries, A Study of the Marine Resources of Pleasant Bay, May, 1967.

This study details the resources of Pleasant Bay. It is broken up into the following parts: physical and chemical characteristics;

finfish; the shellfisheries; the tidemarshes; economic values; and recommendations for pollution regulation, protection of the environment of shellfisheries, and for additional studies.

Maps

Outline map of the Pleasant Bay Estuary showing depth contours 1 inch = 2,000 yards

Profiles showing cross sectional outlines 1 inch = 2,000 yards

NERBC

Commonwealth of Massachusetts, Department of Natural Resources, Division of Marine Fisheries, A Study of the Marine Resources of the Westport River, May, 1968.

This study evaluates the Westport River as to the physical and chemical characteristics of the river, the finfish of the river, the shellfisheries, and the tide marshes and contains recommendations for the enhancement of the river.

Maps

Outline maps of the Westport River Estuary showing depth contours 1 inch = 2,000 yards

Profiles showing cross sectional outline 1 inch = 2,000 yards

MWRC

Commonwealth of Massachusetts, Legislative Research Council, State Licensing and Control of Use of Tidelands, January 26, 1959.

This report is a study of practices in Massachusetts and elsewhere with respect to state licensing and control of the use of tidelands. It discusses this under the following topics: public and private rights; history of Massachusetts tidelands law; license procedure in Massachusetts; possible legislation; and constitutional limitations on legislation.

NERBC

Commonwealth of Massachusetts, Water Resources Commission,
Coastal Flooding in Barnstable County, Cape Cod, Massach-
usetts, March, 1963.

This report provides coastal flood information and indicates the kinds of information available on coastal flooding and resultant damages.

Maps

Timing and sequence of high tides for selected stations	1 inch = 6 miles
Coastal flood plain map, Cape Cod, Massachusetts	1 inch = 2.5 miles
General map of coastal flood damage by rains	1 inch = 6 miles
Areas of major coastal flood damage, 1954	1 inch = 6 miles

NERBC

Department of the Army, Corps of Engineers, Beach Erosion
Control Report on Cooperative Study of Cape Cod Canal to
Provincetown, Massachusetts, October 1959.

This study attempts to determine the best method of shore stabilization and protection for the north shore of Cape Cod from Cape Canal in Sandwich to Race Point in Provincetown.

Maps

Central map	1 inch = 2,000 feet
Survey map	1 inch = 2,400 feet
Shoreline and offshore depth changes	1 inch = 2,500 feet

MWRC

Department of the Army, Corps of Engineers, Beach Erosion
Control Report on Cooperative Study of Revere and Nantasket
Beaches, Massachusetts, March, 1968.

This study reviews the problems of Revere and Nantasket Beaches and attempts to determine the best methods of restoring and protecting the beach developments.

Maps

Location map of Nantasket and Revere Beaches

	1 inch = 2000 feet
Survey map, Revere Beach	1 inch = 750 feet
Survey map, Nantasket Beach	1 inch = 750 feet
Comparative profiles, Revere Beach	1 inch = 600 feet
Comparative profiles, Nantasket Beach	1 inch = 600 feet
Shoreline and off-shore changes, Revere Beach	1 inch = 2400 feet
Shoreline and off-shore changes Nantasket Beach	1 inch = 2400 feet
Plan of protection, Revere Beach	1 inch = 750 feet
Plan of protection, Nantasket Beach	1 inch = 750 feet

NERBC

Department of the Army, Corps of Engineers, Clark Point, New
Bedford, Massachusetts, Beach Erosion Control Study,
September, 1962.

This study attempts to determine the best method of restoration and stabilization of the city beaches along Rodney French Boulevard on the east and west sides of the Clark Point peninsula.

Maps

Survey map	1 inch = 650 feet
Shoreline changes, Clark Point	1 inch = 2500 feet
Plan of protection	1 inch = 650 feet

MWRC

Department of the Army, Corps of Engineers, Edgartown Harbor, Massachusetts, May, 1969.

This study attempts to determine the need and economic justification for modifying the existing navigation project for the harbor in accordance with the desires of local interests.

Maps

Edgartown Harbor general plan	1 inch = 1100 yards
Edgartown Harbor, survey map	1 inch = 3000 feet
Edgartown Harbor, Katoma Bay, barrier beach plan section	1 inch = 600 feet
Edgartown Harbor, shoreline changes	1 inch = 2400 feet

NERBC

Department of the Army, Corps of Engineers, Hurricane Survey Narragansett Bay Area, Rhode Island and Massachusetts January 11, 1965.

This report further reflects the studies that have been made to supplement the hurricane report of 1957. All pertinent data including the history and characteristics of hurricanes, tidal hydraulics, coastal engineering and oceanography are presented.

Maps

Population distribution	no scale
Tracks of selected hurricanes	1 inch = 200 miles
Narragansett Bay general plan of tidal barrier studies	1 inch = 12,000 feet
Narragansett Bay flood area and damages	1 inch = 12,000 feet

NERBC

Department of the Army, Corps of Engineers, Interim Report - Hurricane Survey, Narragansett Bay Area, Rhode Island, Massachusetts, February 15, 1957.

The study encompasses all effects of hurricanes in the Narragansett Bay area. There is also a historical review of past hurricanes in the area and proposals for hurricane protection for the future.

Maps

Narragansett Bay - drainage basin map	1 inch = 11.5 miles
Narragansett Bay - isohyetal map, storm of Sept. 17-22, 1938	1 inch = 55 miles
Narragansett Bay - tidal barrier studies, general plan	1 inch = 4,500 yards
	NERBC

Department of the Army, Corps of Engineers, Project maps - Flood Control, June 30, 1968.

This report includes copies of reservoir maps, general plans, and pumping stations for flood control projects in New England.

NERBC

Department of the Army, Corps of Engineers, Water Resources Development in Massachusetts, January 1, 1969.

This report discusses the various water resource projects conducted in Massachusetts by the Army Corps of Engineers. These projects consist of works for navigation, flood control, shore protection, tidal flood protection, and other related purposes.

Maps

Authorized federal projects in Massachusetts

	1 inch = 15 miles
River basins in Massachusetts	1 inch = 34 miles
Connecticut River Basin reservoir projects	no scale
Merrimac River Basin	1 inch = 16 miles

Flood control projects in the Thames River Basin	1 inch = 9 miles
Hurricanes affecting New England	1 inch = 65 miles
Blackstone River Basin flood control projects	1 inch = 5.8 miles NERBC

Department of the Army, Corps of Engineers, Water Resources
Development in Rhode Island, January 1, 1969.

This report discusses the various water resource projects conducted in Rhode Island by the Army Corps of Engineers. These projects consist of works for navigation, flood control, shore protection, tidal flood protection, and other related purposes.

Maps

Authorized federal projects in Rhode Island	1 inch = 10 miles
Flood control projects, Blackstone River Basin	1 inch = 5.8 miles
Hurricanes affecting New England	1 inch = 65 miles
Point Judith multiple-purpose project	1 inch = 4,000 feet NERBC

Department of the Army, Corps of Engineers, New England Division, Report by the United States Department of Health, Education and Welfare, Effects of Proposed Hurricane Barriers on Water Quality of Narragansett Bay, 1960.

This report determines whether the proposed lower bay barriers will have any measurable effect on the quality of the waters of Narragansett Bay.

Maps

Narragansett Bay	1 inch = 20,000 feet
Many maps of lower bay showing different effects	1 inch = 8,000 feet
	NERBC

Metropolitan Area Planning Council, Open Space and Recreation Program for Metropolitan Boston - Volume II - Boston Harbor.

This study discusses recommendations for protecting and developing Boston Harbor.

Maps

The Harbor Park System	NERBC
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Public Health Service, Massachusetts Coastal Streams, 1952.

This report provides information concerning the use, pollution, results from abatement and prevention of pollution, pollution prevention methods now in effect, and those which are needed of water resources in the Massachusetts coastal area.

Maps

General reference map	1 inch = 15 miles
Existing primary water uses	1 inch = 15 miles
Sources of pollution and existing treatment plants	1 inch = 15 miles
Present stream conditions	1 inch = 15 miles
Projects required	1 inch = 15 miles
Sub-basin areas	1 inch = 15 miles

FWQA

Rhode Island, Report of the Governor's Committee on the Coastal Zone, March, 1970.

This report presents recommendations for creation of a mechanism within the state government which can formulate policies for the coastal zone, prepare plans based on these policies, and coordinate public and private actions toward the achievement of the objectives set by these plans. In addition, the activities and problems of the area are delineated along with an inventory of governmental responsibilities.

Maps

The Rhode Island Coastal Zone	1 inch = 20,000 feet
Recreational fishing, swimming and access areas	1 inch = 20,000 feet
Open space areas	1 inch = 20,000 feet
Polluted areas	1 inch = 20,000 feet
Federal military areas	1 inch = 20,000 feet
Commercial fishing areas	1 inch = 20,000 feet
Transportation	1 inch = 20,000 feet
Special navigation areas	1 inch = 20,000 feet
Generalized existing land use	1 inch = 20,000 feet
Municipal zoning	1 inch = 20,000 feet
	NERBC

Rhode Island Development Council, The Rhode Island Shore, A Regional Guide Plan Study, 1955-1970, March, 1956.

This study sketches in broad outline the basic resources of the shore region, trends in resource utilization, and goals for the future.

RIWRB

United States Department of the Interior, Geological Surveys Shoreline Changes Along the South Shore of Cape Cod Caused by the Hurricane of September 1944, and the Storms of November 30, 1944, and January 1, 1945, 1946.

This study documents the effects of the hurricane and storms on Cape Cod.

Maps

Path of 1944 hurricane in New England	1 inch = 26 miles
South shore of Cape Cod, western part, showing areas affected by 1944 hurricane high water	1 inch = .6 miles
South shore of Cape Cod, eastern part, show- ing areas affected by 1944 hurricane high water	1 inch = .6 miles
	NERBC

United States Department of the Interior, Hurricane Damage Control Narragansett Bay and Vicinity, Rhode Island and Massachusetts-A Detailed Report on Fishery Resources, May, 1959.

This report discusses hurricane protection for the marine life of Narragansett Bay. Also included are facts on the environment, seasonal distribution of certain physical and chemical oceanographic variables in the Bay, pollution effects on hard shell clams, effects of different temperatures and salinities on oysters and sand clams, invertebrates and their environmental relationships, fishery resources, and the planktonic fish eggs and larvae of the Bay.

Maps

Tentative locations of barrier sites	1 inch = 600 yards
Bottom invertebrate study station locations	1 inch = 2.6 nautical mi.
Trawl sampling stations	1 inch = 2.6 nautical mi.
	MF&G

United States Department of the Interior, A Preliminary Bibliography with UWIC Index on the Ecology of Estuaries and Coastal Areas of the Eastern United States, by Robert Livingstone, Jr., May, 1965.

The bibliography emphasizes the ecology of estuarine organisms. In addition, a substantial number of references are included on physical and chemical oceanography and on geology and paleo-ecology.

MF&G

United States Department of the Interior, A Preliminary Report
on Fishery Resources in Relation to the Hurricane Damage
Control Program for Narragansett Bay and Vicinity, 1956.

This report discusses bottom fauna studies, winter flounder studies, inventories of sport and commercial finfish resources, and inventories of the quahog population in the Narragansett Bay area.

Maps

Scale: 1 inch = 6,700 yards

Tentative location of barrier sites, Narragansett Bay

Striped bass

Tautog

Bluefish

Porgy (scup)

Summer flounder

Mackerel

Weakfish

Menhaden fishery

Bay scallop

Wild oyster fishery

Soft clam and sea clam fishery

Winkle and blue mussel fishery

Lobster fishery

Trawl fishery

Distribution of hard clams

MF&G

United States Department of the Interior, Sand and Gravel on
the Continental Shelf off the Northeastern United States, 1968.

This report discusses the origin of sand and gravel off of the northeastern coast of the United States and the potential uses of this sand and gravel.

Maps

Sample localities on the continental margin off

Northeastern United States

1 inch = 75 kilometers

Distribution and principal model grain size of sand on

the continental margin off Northeastern United States

1 inch = 75 kilometers

Distribution of gravel on the continental margin off
Northeastern United States 1 inch = 75 kilometers
MWRC

United States Department of the Interior, Federal Water Pollution
Control Administration, Proceedings of Conference at Boston,
Massachusetts, Pollution of the Navigable Waters of Boston
Harbor and its Tributaries, May 20, 1968.

This report includes the proceedings of the conference
on pollution of Boston Harbor, dated May 20, 1968,
and discusses the pollution of Boston Harbor within
five major categories: sources of pollution; effects of
pollution on water uses; present water quality; pollution
control agencies; and recommendations for pollution
control.

Maps

Boston Harbor, classification	1 inch = 2 miles
Major waste discharges and average coliform densities	1 inch = 2 miles
Classification of shellfish areas	
Polychaete worms, Boston Harbor	1 inch = 2 miles
Phytoplankton, Boston Harbor	1 inch = 2 miles
Boston Harbor	1 inch = 1.4 miles

NERBC

United States Department of the Interior, Federal Water Pollution
Control Administration, Proceedings of Conference at Boston,
Massachusetts, In the Matter of Pollution of the Navigable
Waters of Boston Harbor and its Tributaries, April 30, 1969.

This report includes the proceedings of the conference on
pollution of Boston Harbor, dated April 30, 1969, and dis-
cusses sources of pollution, garbage and refuse disposal,
present water quality, water currents, and the deep tunnel
proposal. It also includes appendices with data on water
quality, fish samples and climate.

Maps

Major municipal discharges	1 inch = 2 miles
Coliform classification standards (summer 1968)	1 inch = 2 miles

Coliform values (summer 1968)	1 inch = 2 miles
Location of areas with dissolved oxygen levels below those set by standards	1 inch = 2 miles
Dissolved oxygen (summer 1968)	1 inch = 2 miles
Station locations (1967)	1 inch = 2 miles
Dredging by Corps of Engineers - United States Army and Commonwealth of Massachusetts (Sept. 1967 - Aug. 1968)	1 inch = 2 miles
Mean total orthophosphate concentrations, high tide (summer 1968)	1 inch = 1.9 miles
Mean total orthophosphate concentrations, low tide (summer 1968)	1 inch = 2 miles
Mean nitrate-nitrogen concentration, high tide (summer 1968)	1 inch = 2 miles
Mean nitrate-nitrogen concentration, low tide (summer 1968)	1 inch = 2 miles
Temperature degrees centigrade, 2 ft. depth, mean low tide (summer 1968)	1 inch = 1.9 miles
Temperature degrees centigrade, 2 ft. depth, mean mid tide (summer 1968)	1 inch = 1.9 miles
Temperature degrees centigrade, 2 ft. depth, mean high tide (summer 1968)	1 inch = 1.9 miles
Station locations (1968)	1 inch = 2 miles
Salinity percentages, 2 ft. depth, mean low tide (summer 1968)	1 inch = 1.9 miles
Salinity percentages, 2 ft. depth, mean mid tide (summer 1968)	1 inch = 1.9 miles
Salinity percentages, 2 ft. depth, mean high tide (summer 1968)	1 inch = 1.9 miles
Drogue study (Oct. 1968)	1 inch = 1.9 miles
Location of current meters	1 inch = 1.9 miles
	NERBC

United States Department of the Interior, Federal Water Pollution
Control Administration, Summary of Water Quality Evalua-
tions, Boston Harbor and Tributaries, July and August, 1967.

This report presents the results of an investigation to
test the dissolved oxygen content of the waters, the number
of coliform and salmonella bacteria, the level of suspended
solids, color and turbidity of the waters, and nitrogen and
phosphorus concentrations.

Maps

Charles River Watershed

1 inch = 3.2 miles

MWRC

United States Department of the Interior, Federal Water Pollution Control Administration, Report on Pollution of the Navigable Waters of Boston Harbor, May, 1968.

This report discusses the pollution of Boston Harbor within five major categories: sources of pollution; effects of pollution on water uses; present water quality; pollution control agencies; and recommendations for pollution control.

Maps

Boston Harbor, classification

1 inch = 2 miles

Major waste discharges and average coliform densities

1 inch = 2 miles

Classification of shellfish areas

1 inch = 2 miles

Polychaete worms, Boston Harbor

1 inch = 2 miles

Phytoplankton, Boston Harbor

1 inch = 2 miles

Boston Harbor

1 inch = 1.4 miles

NERBC

United States Department of the Interior, Supplementary Report on the Coastal Wetlands Inventory of Massachusetts, June, 1965.

This report tabulates the acreage of about 90% of the states coastal wetlands located in Barnstable, Dukes, Essex, Nantucket, Plymouth, and Suffolk Counties and compares the results to similar inventories taken in 1954 and 1959 to determine the acreage lost in the period. The report also covers the causes of these losses and the number of acres which are vulnerable to loss now or in the future.

NERBC

United States Department of the Interior, Supplementary Report on the Coastal Wetlands Inventory of Rhode Island, June, 1965.

This report tabulates the acreage of 24 coastal wetlands located in Bristol, Newport, and Washington Counties (about 90% of the states coastal wetland areas) and

compares the results to similar inventories taken in 1954 and 1959 to determine the acreage of wetlands lost in the period. The report also covers the causes of these losses and the number of acres which are vulnerable to loss now or in the future.

NERBC

United States Department of the Interior, Wetlands of Massachusetts, October, 1959.

This study describes wetland types, waterfowl values of wetland types, contribution of wetland types to other wildlife, land use changes affecting wetlands, and improvement of wetlands for wildlife.

Maps

Physiographic regions in Massachusetts

1 inch = 22 miles

Massachusetts wetlands inventory

1 inch = 9 miles

MWRC

University of Massachusetts, United States Department of Agriculture, Cooperative Extension Service, An Inventory and Interpretation: Selected Resources of the Island of Nantucket, 1966.

This study inventories selected resources on the Island, identifies resource complexes that have value greater than that of the individual resource, looks for relationships between the natural resource base and existing and/or future land use patterns, and identifies resources individually or collectively which require some form of protection or management program for retention or enhancement of their intrinsic value.

Maps

Geology, topography, and groundwater

1 inch = 1.6 miles

Major vegetation types

1 inch = 1.6 miles

Habitat of selected game species

1 inch = 1.6 miles

Shorebirds, waterfowl, and eel grass

1 inch = 1.6 miles

Principal mollusk and crustacean areas

1 inch = 1.6 miles

Principal finfish areas	1 inch = 1.6 miles
Shoreline survey key map	1 inch = 1.6 miles
Storm damage and shoreline changes	1 inch = 1.6 miles
Circulation	1 inch = 1.6 miles
Land ownership pattern	1 inch = 1.6 miles
Historical and archeological sites	1 inch = 1.6 miles
Major biophysical resource areas	1 inch = 1.6 miles
Natural factors (as potential determinants of land use)	1 inch = 1.6 miles
Landscape types and values	1 inch = 1.6 miles
	NERBC

*The University of Rhode Island, The Sea-Grant College Program at the University of Rhode Island, A Proposal for Institutional Support Under the National Sea-Grant College and Program Act of 1966.

This proposal outlines the University's program in teaching, research, and public service. The specific portions of the program for which support is requested are noted.

*There is also a supplement to this pamphlet entitled: Supplement, the Sea-Grant College Program at the University of Rhode Island.

NERBC

University of Rhode Island, The Graduate School of Oceanography, The Narragansett Marine Bibliography (Narragansett Bay and Adjacent Waters), October, 1968.

This document is designed to serve as a reference guide to the scientific studies on Narragansett Bay, Rhode Island Sound, and nearby waters. Its format consists of listings under four general categories: biological, chemical, geological, and physical oceanography.

NERBC

Environment

Numerous studies relating to various aspects of the environment have been completed in the Southeastern New England region. Studies concerning ecological, visual, historical, scenic, natural and cultural resources have been prepared for parts of, or all of, the Southeastern New England area. Each of these studies has dealt with a narrow scope of environmental considerations. A very limited number of studies have dealt with the environment in a unified approach, hence the limited bibliography presented here. Other sections of this bibliography should be consulted for reports concerning these environmental aspects.

Trustees of Reservation, Report of the Massachusetts Landscape Survey, 1933.

This report is a survey of the landscape assets of Massachusetts. It inventories land areas having special character by name, type, location, accessibility, interest, owner, and present and best use. It also includes recommendations of how the Trustees of Reservation can be more effective in their efforts to preserve the landscape.

NERBC

United States Department of Commerce, A Proposed Program for Scenic Roads and Parkways, June, 1966.

This report proposes a national program for developing scenic roads and parkways and provides state maps of specific proposals.

Maps

Massachusetts and Rhode Island map showing park sites, recreation areas, monuments, nature preserves, wilderness areas, beaches, wildlife areas, forests, foot trails, horse trails, bicycle trails, parkways, and national parks

Massachusetts map

1 inch = 22 miles

Rhode Island map

1 inch = 7.5 miles

NERBC

United States Department of the Interior, Bureau of Sport Fisheries, Man and Nature in the City, October 21, 22, 1968.

This report is a review of a symposium held on the subject of man and nature in the city. It covers seven basic urban problems

and needs including: human needs and the natural environment; nature and the urban dweller; nature in our cities; meeting urban wildlife needs; nature and the ghetto dwellers; the natural world of the new city; and urban youth and natural environments.

NERBC

University of Massachusetts, United States Department of Agriculture,
Cooperative Extension Service, An Inventory and Interpretation:
Selected Resources of the Island of Nantucket, 1966.

This study inventories selected resources on the Island, identifies resource complexes that have value greater than that of the individual resource, looks for relationships between the natural resource base and existing and/or future land use patterns, and identifies resources individually or collectively which require some form of protection or management program for retention or enhancement of their intrinsic value.

Maps

Geology, topography, and groundwater	1 inch = 1.6 miles
Major vegetation types	1 inch = 1.6 miles
Habitat of selected game species	1 inch = 1.6 miles
Shorebirds, waterfowl, and eel grass	1 inch = 1.6 miles
Principal mollusk and crustacean areas	1 inch = 1.6 miles
Principal finfish areas	1 inch = 1.6 miles
Shoreline survey key map	1 inch = 1.6 miles
Storm damage and shoreline changes	1 inch = 1.6 miles
Circulation	1 inch = 1.6 miles
Land ownership pattern	1 inch = 1.6 miles
Historical and archeological sites	1 inch = 1.6 miles
Major biophysical resource areas	1 inch = 1.6 miles
Natural factors (as potential determinants of land use)	1 inch = 1.6 miles
Landscape types and values	1 inch = 1.6 miles

NERBC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Recreation

Commonwealth of Massachusetts, House No. 1300, Report of the Special Commission Directed to Study the Use of Certain Lands and Waters in the Commonwealth for Recreational Purposes, December 6, 1933.

This report lists and discusses the recreational facilities especially the ponds and reservoirs of Massachusetts.

MWRC

Commonwealth of Massachusetts, Report of the Special Commission Directed to Study the Use of Certain Lands and Water in the Commonwealth for Recreational Purposes, December 6, 1933.

This report describes those lands and waters owned by the Commonwealth under the control of the Department of Natural Resources, and also ocean frontage and great ponds which are not subject to private ownership, those owned by the Commonwealth and under the control of the Metropolitan District Commission, and those under the control of any political subdivision of the Commonwealth.

MWRC

Commonwealth of Massachusetts, Report of the Special Commission Established to Make an Investigation and Study Relative to Improving the Recreational Facilities and Expanding the Recreation, Travel, Vacation, and Tourist Industry of the Commonwealth, June, 1967.

This report consists of recommendations for studying specific areas of tourism, recapitulates a symposium held at Northeastern University concerning tourism, travel, and recreation and contains various proposals for improving tourism in the Commonwealth.

MWRC

Commonwealth of Massachusetts, Water Resources Commission,
Division of Water Pollution Control, River Basin Classifica-
tions, March 6, 1967.

Present and proposed classifications of water in Massa-
chusetts are given with regard to public health, public
enjoyment, propagation and protection of fish and wildlife,
and economic and social development.

Maps

Blackstone River Basin	1 inch = 4.5 miles
Boston Harbor	1 inch = 2.5 miles
Charles River Basin	1 inch = 4.5 miles
Chicopee River Basin	1 inch = 12.5 miles
Concord, Assabet, and Sudbury River Basin	1 inch = 4.5 miles
Connecticut River Basin	1 inch = 6.7 miles
Deerfield River Basin	1 inch = 4.5 miles
Farmington River Basin	1 inch = 4.5 miles
French River Basin	1 inch = 4.5 miles
Hoosic River Basin	1 inch = 4.5 miles
Housatonic River Basin	1 inch = 4.5 miles
Ipswich River Basin	1 inch = 4.5 miles
Kiekamuit, Warren, and Barrington River Basin	1 inch = 3 miles
Merrimack River Basin	1 inch = 5.3 miles
Millers River Basin	1 inch = 4.5 miles
Mystic River Basin	1 inch = 2.5 miles
Nashua River Basin	1 inch = 4.5 miles
Neponset River Basin	1 inch = 4.5 miles
North Coastal	1 inch = 6.7 miles
Parker River Basin	1 inch = 3.5 miles
Quinebaug River Basin	1 inch = 4.5 miles
Scantic River Basin	1 inch = 1.7 miles
Shawsheen River Basin	1 inch = 6.7 miles
South Coastal	1 inch = 6.7 miles
Taunton River Basin	1 inch = 4.5 miles
Ten Mile River Basin	1 inch = 2.7 miles
Westfield River Basin	1 inch = 4.5 miles
Weymouth River Basin	1 inch = 3 miles

NERBC

Commonwealth of Massachusetts, Water Resource Commission,
Division of Water Pollution Control, Water Quality Standards,
March 6, 1967.

A classification system is adopted for Massachusetts' waters to designate future usage with such factors as public health, public enjoyment, propagation and protection of fish and wildlife, and economic and social development considered.

NERBC

Crevo and Southworth, 1965 Summer Outdoor Recreation Demand and Travel Inventories, March, 1966.

This paper documents four inventories related to outdoor recreation in Rhode Island. They are a recreation travel telephone home interview Survey, external roadside recreational origin-destination survey, on-site recreational origin survey, and a recreational attitude survey.

Maps

Rhode Island recreation travel inventory 1 inch = 5.7 miles

RIWRB

Department of the Army, Corps of Engineers, Charles River Study: Recreation, Interim Memo #6, Proposed Bikeway Systems for Lower Basin and Muddy River, February 10, 1970.

This report discusses the development of bikeways for the city of Boston.

Maps

Proposed bikeway systems for lower basin and
Muddy River 1 inch = .4 miles
Proposed bikeway systems for lower basin and
Muddy River 1 inch = .4 miles

NERBC

Massachusetts Department of Natural Resources, Cape Cod Planning Program, March, 1963.

This study analyzes the existing public and private outdoor recreational areas and facilities and recommends action for the needs of 1970 and 1980.

NERBC

Massachusetts Department of Natural Resources, Massachusetts Outdoor Recreation Plan, 1966.

This study reviews the supply and demand of recreational needs in Massachusetts. It then further indicates the needs, programs, and the means of implementation of recreation in the state.

Maps

Massachusetts Outdoor Recreation Plan 1 inch = 5.5 miles

NERBC

Metropolitan Area Planning Council, Open Space and Recreational Plan and Program for Metropolitan Boston- Volume 1, (undated)

This study sets up plans for the future use of open space and recreational land in the Boston Metropolitan Area.

NERBC

Metropolitan Area Planning Council, Open Space and Recreation Program for Metropolitan Boston-Volume II-Boston Harbor, (undated)

This study discusses recommendations for protecting and developing Boston Harbor.

Maps

The Harbor Park System (no scale)

NERBC

Metropolitan Area Planning Council, Open Space and Recreation Program for Metropolitan Boston, Volume III, The Mystic, Charles, and Neponset Rivers, April, 1969.

This study presents an intense look at the three rivers detailing their histories, present use, and recommended open space programs.

Maps

The Rivers Park System

Also there are a number of small maps representing close-ups of different areas.

NERBC

Metropolitan Area Planning Council, Open Space and Recreation Program for Metropolitan Boston, Volume 4, Massachusetts Open Space Law, April, 1969.

This is a study of Boston Metropolitan area's ability to control use of its land in the interest of preserving open space. It shows government involvement in open space land control and details laws concerning land use.

NERBC

Middlesex Conservation District, Natural Resources Study of the Town of Sherborn, Massachusetts, June, 1968.

This study presents the conservation and recreation potentials of the natural resources in the town of Sherborn.

Maps

Natural resource maps

1 inch = .65 miles

NERBC

Rhode Island Department of Health, Division of Water Pollution, Water quality Standards for Interstate Waters, June, 1967.

This report details the water quality classifications of the interstate waters of Rhode Island. The report discusses water quality as a whole and then each water body is examined.

Maps

Proposed classification of water quality	1 inch = 1.65 miles
Present classification of water quality	1 inch = 1.65 miles

NERBC

Rhode Island Department of Natural Resources, Plan for Recreation, Conservation, and Open Space, February, 1968.

This report includes an inventory of recreation, conservation, and open space resources, first-phase capacity and demand analyses, a policy statement on long range planning for recreation facilities, conservation areas, and open space, and a three year action program, 1968-1970.

Maps

Rhode Island recreation systems	1 inch = 5.7 miles
Rhode Island recreation, open space, conservation inventory map (1957)	1 inch = 5.7 miles

RIWRB

Rhode Island Development Council, Recreation Guide Plan, June, 1965.

This study details the present and future recreational needs of the State of Rhode Island. There is a study of the different types of park lands, proposed and existing, including the local system, the metropolitan park system, the coastal system, and the woodland system.

NERBC

Rhode Island Development Council, Recreation Guide Plan Supplement.

This report provides detailed maps showing the recreation areas of Rhode Island.

RIWRB

Rhode Island Statewide Comprehensive Transportation and Land Use Program, Public Rights-of-Way to the Shore, March, 1970.

This report concerns it self with three major subjects: first, the legal and legislative basis for the establishment and existence of all public rights-of-way; second, an actual

graphic and pictorial inventory of all public rights-of-way in the state; third, recommendations for the development of certain rights-of-way.

Maps

Public rights-of-way inventory, State of Rhode Island

(1969)

1 inch = 22,000 feet

Maps of sections of towns showing public rights-of-way

Westerly (16 maps)	1 inch = 80 feet
Charlestown (3 maps)	1 inch = 100 feet
South Kingston (2 maps)	1 inch = 100 feet
Narragansett (9 maps)	1 inch = 100 feet
(2 maps)	1 inch = 80 feet
Warwick (22 maps)	1 inch = 100 feet
East Providence (6 maps)	1 inch = 100 feet
Barrington (2 maps)	1 inch = 80 feet
Warren (10 maps)	1 inch = 200 feet
Bristol (10 maps)	1 inch = 50 feet
(6 maps)	1 inch = 100 feet
Portsmouth (12 maps)	1 inch = 100 feet
Middleton (3 maps)	1 inch = 100, 150, 50 feet
Newport (2 maps)	1 inch = 100, 200 feet

NERBC

Trustees of Reservation, Report of the Massachusetts Landscape Survey, 1933.

This report is a survey of the landscape assets of Massachusetts. It inventories land areas having special character by name, type, location, accessibility, interest, owner, and present and best use. It also includes recommendations of how the Trustees of Reservation can be more effective in their efforts to preserve the landscape.

NERBC

United States Department of Agriculture, Economic Research Service, Natural Resource Economics Division, Water Resources Branch, Water Resources in New England and Related Areas, An Annotated Bibliography, Adam A. Sokoloski, August, 1969.

This report contains an annotated bibliography with some of the information pertaining to the Southeastern New England study area. The topics covered are: irrigation and soil moisture, water quality, floods, resource inventory, and management and planning.

NERBC

United States Department of Commerce, A Proposed Program for Scenic Roads and Parkways, June, 1966.

This report proposes a national program for developing scenic roads and parkways and provides state maps of specific proposals.

Maps

Massachusetts and Rhode Island map showing park sites, recreation areas, monuments, nature preserves, wilderness areas, beaches, wildlife areas, forests, foot trails, horse trails, bicycle trails, parkways, and national parks.

Massachusetts map
Rhode Island map

1 inch = 22 miles
1 inch = 7.5 miles

NERBC

United States Department of the Interior, Federal Water Pollution Control Administration, Proceedings of Conference at Boston, Massachusetts, Pollution of the Navigable Waters of Boston Harbor and its Tributaries, May 20, 1968.

This report includes the proceedings of the conference on pollution of Boston Harbor, dated May 20, 1968, and discusses the pollution of Boston Harbor within five major categories: sources of pollution; effects of pollution on water uses; present water quality; pollution control agencies; and recommendations for pollution control.

Maps

Boston Harbor, classification	1 inch = 2 miles
Major waste discharges and average coliform densities	1 inch = 2 miles
Classification of shellfish areas	1 inch = 2 miles
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Boston Harbor	1 inch = 1.4 miles

NERBC

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Droque study (Oct. 1968)	1 inch = 1.9 miles
Location of current meters	1 inch = 1.9 miles

NERBC

United States Department of the Interior, Federal Water Pollution
Control Administration, Report on Pollution of the Navigable
Waters of Boston Harbor, May, 1968.

Maps

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Phytoplankton, Boston Harbor	1 inch = 2 miles
Boston Harbor	1 inch = 1.5 miles

NERBC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Fish and Wildlife

Commonwealth of Massachusetts, Report of the Department of Natural Resources Relative to the Coastal Wetlands in the Commonwealth, January, 1964.

This report attempts to specifically denote priority and marginal coastal wetlands areas based upon key values and to suggest a sound approach to their acquisition and protection.

MWRC

Commonwealth of Massachusetts, Trout Pond Management in Massachusetts.

This report is broken down into the following sub-sections on trout management: economics of angling pond dynamics; trout requirements; the trout pond resource; trout management policy; and action programs and recommendations.

MF & G

Commonwealth of Massachusetts, Department of Natural Resources, Division of Marine Fisheries, A Study of the Marine Resources of Beverly-Salem Harbor, March, 1967.

This study details the resources of the Beverly-Salem Harbor. It is broken up into the following parts: physical and chemical characteristics; finfish; shellfish; the lobster industry; marine vegetation; economic values; and recommendations for pollution control, protection of wetlands, and additional studies.

Maps

Sampling station location in Beverly-Salem Harbor (1965)

1 inch = 2,000 yards

Outline map of Beverly-Salem Harbor showing depth contours at mean low water

1 inch = 2,000 yards

Outline map of Beverly-Salem Harbor basin at mean high water

1 inch = 2,000 yards

Commonwealth of Massachusetts, Department of Natural Resources,
Division of Marine Fisheries, A Study of the Marine Resources
of the Merrimack River Estuary, June, 1965.

This study details the resources of the Merrimack River Estuary. It is broken up into the following parts: physical and chemical characteristics; finfish; the shellfishery; lobsters and crabs; flora; economic values; and recommendations for pollution control, enhancement of the shellfish industry, additional studies, and the establishment of a commission to protect the estuary.

Maps

Sampling station locations in the Merrimack River Estuary (1964)

Outline map of the Merrimack River Estuary showing depth contours at mean low water

1 inch = 1,600 yards

Profiles showing the cross-sectional outline of the Merrimack River Estuary Basin at mean high water

1 inch = 800 yards
NERBC

Commonwealth of Massachusetts, Department of Natural Resources,
Division of Marine Fisheries, A Study of the Marine Resources of
the North River, May, 1966.

This study evaluates the type, extent, and value of the marine resources in the North River and recommends measures which would protect and improve the status of these resources.

MWRC

Commonwealth of Massachusetts, Department of Natural Resources,
Division of Marine Fisheries, A Study of the Marine Resources
of the Parker River -- Plum Island Sound Estuary, March 1968.

This study determines the type, status and value of the resources of the estuary and gives data concerning the physical and chemical characteristics which affect them.

Maps

Sampling station locations in the Parker River -- Plum Island Sound Estuary, 1965

1 inch = 1.33 miles

Outline of the Parker River -- Plum Island Sound Estuary
showing depth contours at mean low water

1 inch = 2,000 yards
MWRC

Commonwealth of Massachusetts, Department of Natural Resources,
Division of Marine Fisheries, A Study of the Marine Resources
of Pleasant Bay, May, 1967.

This study details the resources of Pleasant Bay. It is broken up into the following parts: physical and chemical characteristics; finfish; the shellfisheries; the tidemarshes; economic values; and recommendations for pollution regulation, protection of the environment of shellfisheries, and for additional studies.

Maps

Outline map of the Pleasant Bay Estuary showing depth
contours

1 inch = 2,000 yards

Profiles showing cross-sectional outlines

1 inch = 2,000 yards
NERBC

Commonwealth of Massachusetts, Department of Natural Resources,
Division of Marine Fisheries, A Study of the Marine Resources of
the Westport River, May, 1968.

This study evaluates the Westport River as to the physical and chemical characteristics of the river, the finfish of the river, the shellfisheries, the tide marshes, and recommendations for the enhancement of the river.

Maps

Outline maps of the Westport River Estuary showing depth
contours

1 inch = 2,000 yards

Profiles showing cross-sectional outline

1 inch = 2,000 yards
MWRC

Commonwealth of Massachusetts, Water Resources Commission,
Division of Water Pollution Control, River Basin Classifications,
March 6, 1967.

Present and proposed classifications of water in Massachusetts are given with regard to public health, public enjoyment, propagation and protection of fish and wildlife, and economic and social development.

Maps

Blackstone River Basin	1 inch = 4.5 miles
Boston Harbor	1 inch = 2.5 miles
Charles River Basin	1 inch = 4.5 miles
Chicopee River Basin	1 inch = 12.5 miles
Concord, Assabet, and Sudbury River Basin	1 inch = 4.5 miles
Connecticut River Basin	1 inch = 6.7 miles
Deerfield River Basin	1 inch = 4.5 miles
Farmington River Basin	1 inch = 4.5 miles
French River Basin	1 inch = 4.5 miles
Hoosic River Basin	1 inch = 4.5 miles
Housatonic River Basin	1 inch = 4.5 miles
Ipswich River Basin	1 inch = 6.7 miles
Kiekamuit, Warren, and Barrington River Basin	1 inch = 3 miles
Merrimack River Basin	1 inch = 5.3 miles
Millers River Basin	1 inch = 4.5 miles
Mystic River Basin	1 inch = 2.5 miles
Nashua River Basin	1 inch = 4.5 miles
Neponset River Basin	1 inch = 4.5 miles
North Coastal	1 inch = 6.7 miles
Parker River Basin	1 inch = 3.5 miles
Quinebaug River Basin	1 inch = 4.5 miles
Scantic River Basin	1 inch = 1.7 miles
Shawsheen River Basin	1 inch = 6.7 miles
South Coastal	1 inch = 6.7 miles
Taunton River Basin	1 inch = 4.5 miles
Ten Mile River Basin	1 inch = 2.7 miles
Westfield River Basin	1 inch = 4.5 miles
Weymouth River Basin	1 inch = 3 miles

NERBC

Commonwealth of Massachusetts, Water Resource Commission,
Division of Water Pollution Control, Water Quality Standards,
March 6, 1967.

A classification system is adopted for Massachusetts' waters to designate future usage with such factors as public health, public enjoyment, propagation and protection of fish and wildlife, and economic and social development considered.

NERBC

Marine Research Foundation, Inc., Possible Methods of Improving the Shellfish Industry of Martha's Vineyard, Duke's County, Massachusetts, May 1966.

The study attempts to define certain management practices that might lead to an enlargement of the shellfish resources in Duke's County.

MWRC

Massachusetts Department of Natural Resources, An Annotated Bibliography of the Winter Flounder, 1965.

This annotated bibliography has been written primarily for the biologist in order that the necessary material dealing with the life history and mode of living of the winter flounder might be readily available for reference.

MF & G

Massachusetts Department of Natural Resources, Biological Investigations in the Cape Cod Canal Prior to the Operation of a Steam Generating Plant, by Fairbanks, Collins, and Sides, March 1968.

This report tries to detect and evaluate the effects (if any) of power plant operation upon the canal sport fishery. Investigations include the collection of water temperature-salinity data, a monthly survey of the occurrence and distribution of fishes, a creel census to determine catch composition and catch per unit of fisherman effort for a segment of the canal sport fishery, weekly collections of fish eggs and larvae, a seasonal survey of the dominant flora and fauna occurring within systematically selected sample plots along the canal bottom, the utilization of test flora and fauna, and a study of the food habits of the winter flounder in the study area.

MF & G

Massachusetts Department of Natural Resources, Resumes of Main Facts in the Natural History of Shellfish, by Arnold Carr, 1965.

The report covers the resumes of the blue mussel, soft shell clam, bay scallop, quahog, oyster, and surf clam. It also offers the following facts concerning shellfish: life expectancy; size in Massachusetts; legal size; sexual maturity; spawning period; eggs; swimming stage; attached stage; salinity tolerance; food; habitat; and food value.

MF & G

Rhode Island Department of Health, Division of Water Pollution, Water Quality Standards for Interstate Waters, June, 1967.

This report details the water quality classifications of the interstate waters of Rhode Island. The report discusses water quality as a whole and then each water body is examined.

Maps

Proposed classification of water quality

1 inch = 1.65 miles

Present classification of water quality

1 inch = 1.65 miles
NERBC

Trustees of Reservation, Report of the Massachusetts Landscape Survey, 1933.

This report is a survey of the landscape assets of Massachusetts. It inventories land areas having special character by name, type, location, accessibility, interest, owner, and present and best use. It also includes recommendations of how the Trustees of Reservation can be more effective in their efforts to preserve the landscape.

NERBC

United States Department of the Interior, Fishery Statistics of the United States, 1969.

This report is a statistical abstract of the fish catches in the United States. Included in it is a section on Rhode Island and Massachusetts showing the catch in these states.

MF & G

United States Department of the Interior, Permanent Water Areas of Significance to Waterfowl in Massachusetts, February, 1957.

This report summarizes the data obtained during a waterfowl

habitat inventory. All permanent water areas over 20 acres in size were considered.

Maps

Massachusetts permanent water areas of importance to waterfowl
1 inch = 20 miles
MF & G

United States Department of the Interior, A Preliminary Report on Fishery Resources in Relation to the Hurricane Damage Control Program for Narragansett Bay and Vicinity, 1956.

This report discusses bottom fauna studies, winter flounder studies, inventories of sport and commercial finfish resources, and inventories of the quahog population in the Narragansett Bay area.

Maps

Scale: 1 inch = 6700 yards

Tentative location of barrier sites, Narragansett Bay

Striped bass

Tautog

Bluefish

Porgy (scup)

Summer flounder

Mackerel

Weakfish

Menhaden fishery

Bay scallop

Wild oyster fishery

Soft clam and sea clam fishery

Winkle and blue mussel fishery

Lobster fishery

Trawl fishery

Distribution of hard clams

MF & G

United States Department of the Interior, Fish and Wildlife Service, Hurricane Damage Control, Narragansett Bay and Vicinity, Rhode Island and Massachusetts, May, 1965.

This report is a summary of sustaining data which presents the results of studies to evaluate the effects of the proposed plan for hurricane protection of the marine resources of Narragansett Bay.

Maps

Narragansett Bay, general plan of tidal
barrier studies

1 inch = 16,000 feet

Hydrographic station locations	1 inch = 2.8 nautical miles
Fish eggs and larvae station locations	1 inch = 2.8 nautical miles

Maps of barrier plans included

NERBC

United States Department of the Interior, Hurricane Damage Control Narragansett Bay and Vicinity, Rhode Island and Massachusetts -- A Detailed Report on Fishery Resources, May, 1959.

This report discusses hurricane protection for the marine life of Narragansett Bay. Also included are facts on the environment, seasonal distribution of certain physical and chemical oceanographic variables in the Bay, pollution effects on hard shell clams, effects of lower bay barriers on pollution and physical oceanography, effects of different temperatures and salinities on oysters and sand clams, invertebrates and their environmental relationships, fishery resources, and the planktonic fish eggs and larvae of the Bay.

Maps

Tentative locations of barrier sites	1 inch = 600 yards
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Bottom invertebrate study station locations	1 inch = 2.6 nautical miles
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Trawl sampling stations	1 inch = 2.6 nautical miles MF & G
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United States Department of the Interior, Permanent Water Areas of Significance to Waterfowl in Rhode Island, January, 1956.

This report summarizes the data obtained during a waterfowl habitat inventory. Only those water bodies that are of significance to waterfowl are covered.

Maps

Rhode Island permanent water areas of importance to waterfowl	1 inch = 9 miles MF & G
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United States Department of the Interior, A Preliminary Bibliography with UWIC Index on the Ecology of Estuaries and Coastal Areas of the Eastern United States, by Robert Livingstone, Jr., May, 1965.

The bibliography emphasizes the ecology of estuarine organisms. In addition, a substantial number of references are included on physical and chemical oceanography and on geology and paleoecology.

MF & G

United States Department of the Interior, State by State Summaries, National Survey of Needs for Hatchery Fish, October, 1968.

This survey is in two parts. The first section contains a summary and interpretation of hatchery data on a nationwide basis. The second section contains summaries of the data on a state by state basis. For each state a map shows the location of state and federal fish hatcheries. It contains data on amount and types of sport fish habitat, amounts and types of habitat stocked, numbers and types of fishermen, stocking requirements, and hatchery fish production capabilities.

MF & G

United States Department of the Interior, Supplementary Report on the Coastal Wetlands Inventory of Massachusetts, June, 1965.

This report tabulates the acreage of about 90% of the states coastal wetlands located in Barnstable, Dukes, Essex, Nantucket, Plymouth, and Suffolk counties and compares the results to similar inventories taken in 1954 and 1959 to determine the acreage lost in the period. The report also covers the causes of these losses and the number of acres which are vulnerable to loss now or in the future.

NERBC

United States Department of the Interior, Supplementary Report on the Coastal Wetlands Inventory of Rhode Island, June, 1965.

This report tabulates the acreage of 24 coastal wetlands located in Bristol, Newport, and Washington counties (about 90% of the state's coastal wetland areas) and compares the results to similar inventories taken in 1954 and 1959 to determine the acreage of wetlands lost in the period. The report also covers the causes of these losses and the number of acres which are vulnerable to loss now or in the future.

NERBC

United States Department of the Interior, Wetlands of Massachusetts, October, 1959.

This study describes wetland types, waterfowl values of wetland types, contribution of wetland types to other wildlife, land use

changes affecting wetlands, and improvement of wetlands for wildlife.

Maps

Physiographic regions in Massachusetts 1 inch = 22 miles

Massachusetts wetlands inventory 1 inch = 9 miles
MWRC

United States Department of the Interior, Bureau of Sport Fisheries and Wildlife, Man and Nature in the City, October 21, 22, 1968.

This report is a review of a symposium held on the subject of man and nature in the city. It covers seven basic urban problems and needs including: human needs and the natural environment; nature and the urban dweller; nature in our cities; meeting urban wildlife needs; nature and the ghetto dwellers; the natural world of the new city; and urban youth and natural environments.

NERBC

United States Department of the Interior, Federal Water Pollution Control Administration, Proceedings of Conference at Boston, Massachusetts, Pollution of the Navigable Waters of Boston Harbor and its Tributaries, May 20, 1968.

This report includes the proceedings of the conference on pollution of Boston Harbor, dated May 20, 1968, and discusses the pollution of Boston Harbor within five major categories: sources of pollution; effects of pollution on water uses; present water quality; pollution control agencies; and recommendations for pollution control.

Maps

Boston Harbor, classification 1 inch = 2 miles

Major waste discharges and average
coliform densities 1 inch = 2 miles

Classification of shellfish areas 1 inch = 2 miles

Polychaete worms, Boston Harbor 1 inch = 2 miles

Phytoplankton, Boston Harbor 1 inch = 2 miles

Boston Harbor 1 inch = 1.4 miles

NERBC

United States Department of the Interior, Federal Water Pollution
Control Administration, Proceedings of Conference at Boston,
Massachusetts, In the Matter of Pollution of the Navigable
Waters of Boston Harbor and its Tributaries, April 30, 1969.

This report includes the proceedings of the conference on pollution of Boston Harbor, dated April 30, 1969, and discusses sources of pollution, garbage and refuse disposal, present water quality, water currents, and the deep tunnel proposal. It also includes appendices with data on water quality, fish samples and climate.

Maps

Major municipal discharges	1 inch = 2 miles
Coliform classification standards (summer 1968)	1 inch = 2 miles
Coliform values (summer 1968)	1 inch = 2 miles
Location of areas with dissolved oxygen levels below those set by standards	1 inch = 2 miles
Dissolved oxygen (summer 1968)	1 inch = 2 miles
Station locations (1967)	1 inch = 2 miles
Dredging by Corps of Engineers -- United States Army and Common- wealth of Massachusetts (Sept. 1967 - Aug. 1968)	1 inch = 2 miles
Mean total orthophosphate concentra- tions, high tide (summer 1968)	1 inch = 1.9 miles
Mean total orthophosphate concentra- tions, low tide (summer 1968)	1 inch = 2 miles
Mean nitrate-nitrogen concentration, high tide (summer 1968)	1 inch = 2 miles
Mean nitrate-nitrogen concentration, low tide (summer 1968)	1 inch = 2 miles
Temperature degrees centigrade, 2 ft. depth, mean low tide (summer 1968)	1 inch = 1.9 miles

Temperature degrees centigrade, 2 ft. depth, mean mid tide (summer 1968)	1 inch = 1.9 miles
Temperature degrees centigrade, 2 ft. depth, mean high tide (summer 1968)	1 inch = 1.9 miles
Station locations (1968)	1 inch = 2 miles
Salinity percentages, 2 ft. depth, mean low tide (summer 1968)	1 inch = 1.9 miles
Salinity percentages, 2 ft. depth, mean mid tide (summer 1968)	1 inch = 1.9 miles
Salinity percentages, 2 ft. depth, mean high tide (summer 1968)	1 inch = 1.9 miles
Drogue study (Oct. 1968)	1 inch = 1.9 miles
Location of current meters	1 inch = 1.9 miles NERBC

United States Department of the Interior, Federal Water Pollution
Control Administration, Report on Pollution of the Navigable
Waters of Boston Harbor, May 1968.

This report discusses the pollution of Boston Harbor within five major categories: sources of pollution; effects of pollution on water uses; present water quality; pollution control agencies; and recommendations for pollution control.

Maps

Boston Harbor, classification	1 inch = 2 miles
Major waste discharges and average coliform densities	1 inch = 2 miles
Classification of shellfish areas	1 inch = 2 miles
Polychaete worms, Boston Harbor	1 inch = 2 miles
Phytoplankton, Boston Harbor	1 inch = 2 miles
Boston Harbor	1 inch = 1.4 miles

NERBC

University of Massachusetts, United States Department of Agriculture,
Cooperative Extension Service, An Inventory and Interpretation:
Selected Resources of the Island of Nantucket, 1966.

This study inventories selected resources on the Island, identifies resource complexes that have value greater than that of the individual resource, looks for relationships between the natural resource base and existing and/or future land use patterns, and identifies resources individually or collectively which require some form of protection or management program for retention or enhancement of their intrinsic value.

Maps

Geology, topography, and groundwater	1 inch = 1.6 miles
Major vegetation types	1 inch = 1.6 miles
Habitat of selected game species	1 inch = 1.6 miles
Shorebirds, waterfowl, and eel grass	1 inch = 1.6 miles
Principal mollusk and crustacean areas	1 inch = 1.6 miles
Principal finfish areas	1 inch = 1.6 miles
Shoreline survey map	1 inch = 1.6 miles
Storm damage and shoreline changes	1 inch = 1.6 miles
Circulation	1 inch = 1.6 miles
Land ownership pattern	1 inch = 1.6 miles
Historical and archeological sites	1 inch = 1.6 miles
Major biophysical resource areas	1 inch = 1.6 miles
Natural factors (as potential determinants of land use)	1 inch = 1.6 miles
Landscape types and values	1 inch = 1.6 miles

NERBC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Water Supply

Boston Regional Planning Project, Advisory Paper 3: Water Supply in the Boston Region, by Lachlan Ferguson Blair, Consultant, December, 1964.

This study concerns itself with water supply in the Boston Region and the future needs in water supply. It is broken up into the following topics: the general picture; what is the project doing about water; sources of water supply; agencies concerned with water supply; the amount of water needed; and action that should be taken.

Maps

Cities and towns in the Boston Region which have or may have MDC water supply

MAPC

Central Plymouth County Water District Commission, Water Supply Study for Plymouth County, by Camp, Dresser, and McKee, Consulting Engineers, September, 1965.

This report presents a comprehensive survey of the water supply situation in Plymouth County.

Maps

Plan of Jones River	1 inch = 2500 feet
Plan of North River	1 inch = 6200 feet
Plan of proposed North River Reservoir	1 inch = 2000 feet
Plan of Plymouth Ponds	1 inch = 2000 feet
Plan of Cleveland Pond	1 inch = 2000 feet
Map of district showing location of largest water users and recommended groundwater study areas	1 inch = 1.25 miles

MAPC

Committee on Water Resources, Water Resources of the Blackstone Valley, May, 1963.

This report presents an inventory of the water resources in the area and provides estimate of future water needs.

RIWRB

Commonwealth of Massachusetts, The Final Report of the Commission
Relative to the Development and Use by Cities and Towns of Water
Systems and Sources of Water Supply, March 1, 1949.

This report discusses the use of water revenue, the control of water department expenditures, water rates, tax rates, and other problems involving the use of water. The commission also offers its own conclusions and recommendations.

NERBC

Commonwealth of Massachusetts, Report of the Special Commission
Relative to Authorizing the City of Brockton to Extend its Source
of Water Supply, March, 1968.

This report details the Commission's findings in their study of Brockton's water supply.

MWRC

Commonwealth of Massachusetts, Special Report of Public Health Rela-
tive to the Preservation of the Purity of Certain Water Supplies
Within the Commonwealth, December, 1965.

Included in this report are the laws pertaining to water supply, prevention of pollution and taxes on land held for municipal purposes. It also contains rules for sanitary protection of public water supplies, the rules and regulations of the Department of Public Health and a discussion of diseases which can be obtained from water.

NERBC

Commonwealth of Massachusetts, Special Report of the Water Resources
Commission Relative to Methods of Providing an Adequate Water
Supply to the Cities and Towns of the Commonwealth During a
Period of Drought or Other Emergencies, December 30, 1968.

This report contains information concerning municipalities experiencing water shortages, new water sources, and ways of avoiding and/or combating droughts.

MWRC

Commonwealth of Massachusetts, Legislative Research Council,
Report Relative to Water Shortage and Industrial Water Use
and Reuse, April 27, 1966.

This report discusses the climatological and meteorological aspects of the drought of the mid-sixties, the economic impact resulting from the water shortage, and the various influencing factors relative to water supply.

NERBC

Commonwealth of Massachusetts, Water Resources Commission,
The Public Water Supply Resources of the Ipswich River,
January, 1965.

This report presents past and present water consumption and population records and the forecasted future anticipated requirements. The relationship between rainfall and run-off in the basin has been established and the quantity of water available for public water supply has been estimated. Recommendations are given for the controlling of future requirements.

Maps

Ipswich River watershed	1 inch = 10,000 feet
Water resources of the Ipswich River Basin	1 inch = 10,000 feet
Proposed water supply improvements for Newburyport, Newbury, West Newbury, and vicinity.	1 inch = 4,000 feet
	NERBC

Commonwealth of Massachusetts, Water Resources Commission,
Special Report on Groundwater Resources in the Mattapoisett
River Valley, May, 1960.

This report describes the geologic and hydrologic conditions controlling the occurrence of groundwater in the drainage basin of the Mattapoisett River, and discusses several of the factors that should be considered in the development of additional groundwater supplies in that area.

MWRC

Commonwealth of Massachusetts, Water Resources Commission,
Water Resources of Barnstable County, Cape Cod, Massachusetts.
July, 1963.

This is a comprehensive study of the water resources of Cape Cod. The report contains information on rainfall, groundwater geology, an inventory of all ponds and reservoirs, present water usage, anticipated future water quality, and predicted total water needs.

Maps

Location of rainfall stations	1 inch = 5.5 miles
Elevation of bedrock	1 inch = 4 miles
Surficial geology and observation wells	1 inch = 4 miles
Location of lakes and reservoirs	1 inch = 4 miles
Areas served by public water systems	1 inch = 4 miles
Location of public sewerage systems	1 inch = 5.5 miles
Generalized hydrologic grouping of soil	1 inch = 9 miles
	NERBC

Department of the Army, Corps of Engineers, Northeastern United
States Water Supply Study, Interim Memorandum No. 1,
New Bedford, Fall River and Taunton, April, 1968.

This report attempts to determine the water supply requirements and the potential water supply sources for Bristol and Plymouth Counties.

Maps

Map showing existing conveyances and proposed reservoir sites	1 inch = 2 miles
	NERBC

Department of the Army, Corps of Engineers, Northeastern United
States Water Supply Study, Interim Memorandum No. 5,
Worcester-Boston, September, 1968.

This study attempts to determine the projected water supply requirements and potential deficiency areas in the region.

Maps.

Counties, municipalities, and 1960 populations

1 inch = 15 miles

Municipalities presently served by the Metropolitan

District Commission water supply system

1 inch = 15 miles

Plan of the Metropolitan District Commission water

supply system

1 inch = 6.5 miles

NERBC

Department of the Army, Corps of Engineers, Northeastern United States Water Supply Study, Interim Memorandum No. 6, Metropolitan Boston Area, September, 1968.

This report attempts to determine water supply requirements and potential water supply sources for the area.

Maps

Municipalities presently serviced by the Metropolitan District Commission water supply system

1 inch = 15 miles

Plan of the MDC water supply system

1 inch = 6.5 miles

Metropolitan Boston area water conveyances and

distribution system

1 inch = 3 miles

MDC water supply service area

1 inch = 3 miles

1990 projected water deviants in percent

inc rease over 1965

1 inch = 3 miles

NERBC

Department of the Army, Corps of Engineers, Northeastern United States Water Supply Study, Interim Memorandum No. 7, Worcester-Boston, September, 1968.

This report covers those municipalities outside the legislative boundaries of the Boston Metropolitan Water District, attempting to determine future water supply requirements and potential deficiency areas.

Maps

Counties, municipalities, and 1960 populations

1 inch = 15 miles

Areas within sub-regions 14 & 15 with future water

supply problems

1 inch = 15 miles

NERBC

Department of the Army, Corps of Engineers, Northeastern United States Water Supply Study, Interim Memorandum No. 8, Rhode Island, October 1968.

This study attempts to determine the projected water supply requirements and available resources in Rhode Island.

Maps

Rhode Island water use areas	1 inch = 3.5 miles
Rhode Island surface water supplies	1 inch = 3.5 miles
Rhode Island groundwater supplies	1 inch = 3.5 miles
Rhode Island proposed installations	1 inch = 3.5 miles
	NERBC

Department of the Army, Corps of Engineers, Northeastern United States Water Supply Study, Water Utility Directory, Massachusetts, September, 1968.

This report inventories all water utilities in Massachusetts by county, size (annual gross water revenue), source, ownership, gallons produced, population served, number of water services, and communities served.

NERBC

Department of the Army, Corps of Engineers, Northeastern United States Water Supply Study, Water Utility Directory, Rhode Island and Connecticut, September, 1968.

This report inventories all water utilities in Rhode Island and Connecticut by county, size (annual gross water revenue), source, ownership, gallons produced, population served, number of water services, and communities served.

NERBC

Department of the Army, Corps of Engineers, Water Resources Development in Massachusetts, January 1, 1969.

This report discusses the various water resource projects conducted in Massachusetts by the Army Corps of Engineers. These projects consist of works for navigation, flood control, shore protection, tidal flood protection, and other related purposes.

Maps

Authorized federal projects in Massachusetts	1 inch = 15 miles
River basins in Massachusetts	1 inch = 34 miles
Connecticut River Basin reservoir projects	no scale
Merrimac River Basin	1 inch = 16 miles
Flood Control projects in the Thames River Basin	1 inch = 9 miles
Hurricanes affecting New England	1 inch = 65 miles
Blackstone River Basin flood control projects	1 inch = 5.8 miles
	NERBC

Department of the Army, Corps of Engineers, Water Resources Development in Rhode Island, January 1, 1969.

This report discusses the various water resource projects conducted in Rhode Island by the Army Corps of Engineers. These projects consist of works for navigation, flood control, shore protection, tidal flood protection, and other related purposes.

Maps

Authorized federal projects in Rhode Island	1 inch = 10 miles
Flood control projects: Blackstone River Basin	1 inch = 5.8 miles
Hurricanes affecting New England	1 inch = 65 miles
Point Judith multiple-purpose project	1 inch = 4,000 feet
	NERBC

Department of the Army, North Atlantic Division, Corps of Engineers, Feasibility Report on Alternative Regional Water Supply Plans for Southeastern New England, November, 1969.

This report analyzes the Southeastern New England Region on a whole to determine its future water requirements, the capability of individual existing water supply systems, potential surface and groundwater supplies, and requirements for

proper project development. It proposes individual basin projects and six alternative regional plans with cost estimates for water supply development. It also discusses project constraints and proposes a better monitoring system for water supplies.

Maps

Southeastern New England water supply feasibility study area	1 inch = 15 miles
Service areas, major water supply systems	1 inch = 13 miles
Plan of Metropolitan District Commission water supply system	1 inch = 6 miles
Maps of individual water supply systems	not to scale
Maps of each drainage basin in study area	not to scale
Maximum potential yield, groundwater resources	1 inch = 13 miles
Present stream water quality classifications	1 inch = 15 miles
Proposed stream water quality classifications	1 inch = 15 miles
Maps of proposed projects	
Alternative regional plans A to F for 1990 and combinations for 2020 (12 maps)	1 inch = 14 miles

NERBC

Department of the Army, North Atlantic Division, Corps of Engineers,
Appendices for Feasibility Report on Alternative Regional Water Supply Plans for Southeastern New England, November, 1969.

This report contains data pertaining to Southeastern New England on population, future water supply requirements, water quality, hydrology, flow requirements for water quality, groundwater resources, the basis of cost estimates, future technology, and projects considered that are not in the main report.

Maps

Maps of each county with population projections	no scale
Locations of water using industries (4 maps)	no scale

Map of Massachusetts and Rhode Island showing extent
and saturated thickness of stratified drift and dis-
tribution of till 1 inch = 13 miles

Map of Massachusetts and Rhode Island showing rates
of groundwater runoff to streams during a dry year
1 inch = 15 miles

Map of Massachusetts and Rhode Island showing areas
used for groundwater yield and cost analyses 1 inch = 13 miles

NERBC

Fenton G. Keyes Associates, Preliminary Engineering Survey and
Report on Water Supply and Distribution for the Town of Tiver-
ton, Rhode Island, May, 1967.

This report studies the practicality of the development of a
wholly integrated and expanded water supply and distribution
system to serve the entire town of Tiverton.

NERBC

Charles A. Maguire and Associates, Engineers, Boston Water Dis-
tribution System, September, 1967.

This report studies the water supply system of Boston as to
water supply and use, the distribution networks, southern
low service, southern high service, high pressure fire
service, and Parker Hill.

Maps

Many maps are given concerning Boston's water system.

MAPC

Charles A. Maguire and Associates, Groundwater Situation-Recommended
Program for the Development of the Big and Wood River Reservoir
and Waterworks improvements for the Providence Water Service
Area, March, 1968.

This report summarizes the groundwater situation within and
adjoining the present Providence water supply service area.

Maps

Water service areas	1 inch = 8 miles
Water study areas of Rhode Island	no scale
Aquifers of Rhode Island	no scale

RIWRB

Charles A. Maguire and Associates, Report on Proposed Supplemental Tunnel and Aqueduct and Additional Rapid Sand Filters for the Providence Water Supply System, August, 1964.

This report determines a preliminary design and the cost for supplemental facilities in order to expand the capacity available in the existing water works.

NERBC

Charles A. Maguire and Associates, Report on Water Improvements for Marienville District, Town of North Providence, Rhode Island, September, 1968.

This report presents a comprehensive look at the present and future water supply problems of the area.

RIWRB

Camp, Dresser and McKee, Consulting Engineers, Comprehensive Groundwater Investigation and Distribution System Study for the Town of Stoughton, Massachusetts, April, 1969.

This report is a comprehensive study of the water supply for the town of Stoughton. It is broken up into the following parts: Comprehensive groundwater investigation; alternate water supply facilities; distribution system study; and recommended improvements.

Maps

Groundwater geology, Stoughton	1 inch = 2,000 feet
Plan of existing water distribution system	1 inch = 900 feet
Groundwater investigation	1 inch = 1,500 feet

MAPC

Camp, Dresser, and McKee, Consulting Engineers, Report on Improvements to the Water Distribution and Transmission System for Brockton, Massachusetts, June, 1966.

This report determines what reinforcements and extensions are necessary to provide adequate domestic and industrial service and fire protection throughout the system; studies the adequacy of the existing distribution storage; investigates the need for additional pumping and transmission capacity and makes alternate studies of various methods of reinforcing the transmission and distribution systems.

Maps

Map of existing transmissions systems

1 inch = 2,250 feet

Metropolitan Area Planning Council, Massachusetts Department of Commerce and Development, Water Supply and Sewage Disposal Work Program, by Camp, Dresser and McKee, Consulting Engineer, December, 1966.

This report describes a unified approach for 152 communities surrounding and including Boston to develop and adequate water supply and the means of proper sewage disposal. It also provides an outline which proposes how to handle the arising problems.

MAPC

Metropolitan Area Planning Council, Projected Needs and Current Proposals for Water and Sewer Facilities, by Camp, Dresser and McKee, Consulting Engineers, July, 1969.

This study presents information relative to the adequacy of water and sewer facilities within the Council's district. Information included in the report pertains to recent improvements to public water supply and sewerage systems and current proposals to improve facilities. Also included are projections of water consumption and sewage flows.

Maps

Study area	1 inch = 10 miles
Special water districts	1 inch = 10 miles
Special sewerage districts	1 inch = 10 miles
River basin study areas	1 inch = 10 miles
Groundwater study areas	1 inch = 10 miles
Map 1 - water service areas	
Sheet 1: northeast sector	1 inch = 1.2 miles
Map 1 - water service areas	
Sheet 2: west sector	1 inch = 1.2 miles
Map 1 - water service areas	
Sheet 3: southeast sector	1 inch = 1.2 miles
Map 2 - sewer service areas	
Sheet 1: northeast sector	1 inch = 1.2 miles
Map 2 - sewer service areas	
Sheet 2: west sector	1 inch = 1.2 miles
Map 2 - sewer service areas	
Sheet 3: southeast sector	1 inch = 1.2 miles
Map 3 - water supply and sewage treatment facilities	
Sheet 1: northeast sector	1 inch = 1.2 miles
Map 3 - water supply and sewage treatment facilities	
Sheet 2: west sector	1 inch = 1.2 miles
Map 3 - water supply and sewage treatment facilities	
Sheet 3: southeast sector	1 inch = 1.2 miles

NERBC

Rhode Island Water Resources Coordinating Board, Development Plan for the Water Supply Resources of Rhode Island, by Metcalf & Eddy, June 30, 1967.

This report reviews and revises data on water supply requirements, including industrial needs, in order to bring the data up to date. It also examines the drought of the 1960's and develops a phase program for the Big River Reservoir and auxiliary surface water facilities to supplement the Scituate reservoir supply for the Providence metropolitan area.

Maps

Public surface water supplies	1 inch = 6.5 miles
Average daily yields of ground-water basins	1 inch = 6.5 miles

Big River Reservoir and Flat River Pumping Station	1 inch = 2,000 feet
Moosup River Diversion and Bucks Horn Brook Reservoir	1 inch = 2,000 feet
Wood River Diversion Works and Reservoir	1 inch = 2,000 feet
Tarklin Brook Reservoir and Treatment Plant Site	1 inch = 2,000 feet
Nipmuc River Reservoir	1 inch = 2,000 feet
Proposed development plan for water supply	1 inch = 9,000 feet
Proposed water resources development	1 inch = 12,000 feet

NERBC

Rhode Island Development Council, Groundwater Resources of Bristol,
Warren and Barrington, Bristol County, Rhode Island, 1950.

This is a report on the geology and groundwater
resources of the area.

Maps

Preliminary map of Bristol County, Rhode Island
planning glacial geology and location of wells
1 inch = .6 miles

RIWRB

Rhode Island Development Council, Groundwater Resources in the
Vicinity of Exeter, Rhode Island, 1948.

This study attempts to determine the quantity and quality
of existing groundwater supplies and to locate areas favorable
for more extensive development.

RIWRB

Rhode Island Development Council, Groundwater Conditions in the
Vicinity of Mashapaig Pond, Providence, Rhode Island, 1947.

This study is on the groundwater and geology resources
of the area.

RIWRB

Rhode Island Development Council, Groundwater Resources of Rhode Island, 1953.

This report ascertains areas capable of supplying large quantities of water for industrial and municipal development; determines which of the readily available supplies are not being fully utilized and observes the trend of water levels in wells to determine where the ground-water resources of the state are being depleted and where they can be further developed.

Maps

Map of Rhode Island showing the location of ground-water areas, selected wells and test borings, and stream gaging stations.

1 inch = 2 miles

RIWRB

Rhode Island Statewide Comprehensive Transportation and Land Use Planning Program, Plan for the Development and Use of Public Water Supplies, September, 1969.

This report consists of four major parts: water supplies and systems in Rhode Island; forecasts of future water needs; a plan to provide for Rhode Island's future water needs; and implementation of the water supply and distribution plan.

Maps

1 inch = 5.7 miles

Major surface water supplies
Potential groundwater study areas
Water planning areas
Water service areas, present and future
Land use, scheme A
Land use, scheme B
Land use, scheme C
Land use, scheme D
Land use, scheme E

NERBC

Rhode Island Water Resources Coordinating Board, Appraisal of
the Groundwater Reservoir Areas in Rhode Island, 1961.

This study evaluates sizes of the groundwater reservoirs quantities of water available for replenishing the reservoir, present development of the water resources in the area, and possible future large-scale groundwater withdrawals.

Maps

Out wash of Upper Branch River area	1 inch = .6 miles
Out wash in groundwater reservoir areas in Northeast Rhode Island	1 inch = 1 mile
Out wash in Central Rhode Island	1 inch = .9 miles
Out wash in Southern Rhode Island	1 inch = 1 mile

RIWRB

United States Department of Agriculture, Economic Research Service,
Natural Resource Economics Division, Water Resources Branch,
Water Resources in New England and Related Areas, An Anno-
tated Bibliography, Adam A. Sokoloski, August, 1969.

This report contains an annotated bibliography with some of the information pertaining to the Southeastern New England study area. The topics covered are: irrigation and soil moisture, water quality, floods, resource inventory, and management and planning.

NERBC

United States Department of Health, Education and Welfare, 1963
Inventory, Municipal Water Facilities, New England, 1963.

This report furnished data on all water facilities for the use of industries and other private agencies and all levels of government. It takes each town in the SENE area and supplies the water supply information for the area.

MAPC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Power

Commonwealth of Massachusetts, Legislative Research Council,
Rights to Surface and Sub-Surface Water in Massachusetts,
February 13, 1957.

This report details the effects of the many and varied uses of water. It discusses water as to the water law in Massachusetts, water resources and riparian doctrines, uses of water, industry, agriculture, recreation, hydro-electric power, navigation, flood control, pollution, groundwater, management programs, and problems of water.

Maps

Points of past litigation in Massachusetts (1880-1955)

1 inch = 18 miles

Drainage basins in Massachusetts

1 inch = 18 miles

NERBC

Federal Power Commission, Northeast Regional Advisory Committee,
Electric Power in the Northeast 1970-1980-1990, November, 1968.

This report presents a preliminary view of the generation and transmission addition patterns expected to develop to the year 1990 for the northeastern segment of the electric power industry. It discusses expected future technological developments, considers increased demands for reliable bulk power supply and recognizes a public concern for environmental factors such as air pollution, water thermal effects, and utility plant appearance. The report is concerned primarily with the problems of bulk power supply, and so does not deal directly with questions related to power distribution systems.

Maps

Principal electric facilities in Region I

1 inch = 60 miles

NERBC

Federal Power Commission, New England Coastal Areas--Maine,
New Hampshire, Massachusetts, Rhode Island, Connecticut--
Planning Status Report Water Resource Appraisals for Hydro-
electric Licensing, 1965.

This report constitutes the first step in a program of water resource appraisals for hydroelectric licensing. The report shows data on existing water resource developments and known potentials, summarizes the license status of non-federal hydroelectric developments, reviews past and current planning studies, and identifies the needs for additional planning.

Maps

Federal Power Commission water resource appraisals for hydroelectric licensing summary of planning status.

1 inch = 38 miles

NERBC

Massachusetts Department of Natural Resources, Biological Investigations
in the Cape Cod Canal Prior to the Operation of a Steam Generating
Plant, Fairbanks, Collins, and Sides, March, 1968.

This report tries to detect and evaluate the effects (if any) of power plant operation upon the canal sport fishery. Investigations include the collection of water temperature-salinity data, a monthly survey of the occurrence and distribution of fishes, a creel census to determine catch composition and catch per unit of fisherman effort for a segment of the canal sport fishery, weekly collections of fish eggs and larvae, a seasonal survey of the dominant flora and fauna occurring within systematically selected sample plots along the canal bottom, the utilization of test panel series to gather information on the attached flora and fauna, and a study of the food habits of the winter flounder in the study area.

MF&G

United States Department of Agriculture, Economic Research Service,
Natural Resource Economics Division, Water Resources Branch,
Water Resources in New England and Related Areas, An Annotated
Bibliography, Adam A. Sokoloski, August, 1969.

This report contains an annotated bibliography with some of the information pertaining to the Southeastern New England study area. The topics covered are: irrigation and soil moisture, water quality, floods, resource inventory, and management and planning.

NERBC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Navigation

Commonwealth of Massachusetts, Legislative Research Council,
Rights to Surface and Sub-Surface Water in Massachusetts,
February 13, 1957.

This report details the effects of the many and varied uses of water. It discusses water as to the water law in Massachusetts, water resources and riparian doctrines, uses of water, industry, agriculture, recreation, hydroelectric power, navigation, flood control, pollution, groundwater, management programs, and problems of water.

Maps

Points of past litigation in Massachusetts (1880-1955)
1 inch = 18 miles

Drainage basins in Massachusetts
1 inch = 18 miles
NERBC

Department of the Army, Corps of Engineers, Edgartown Harbor, Massachusetts, May, 1969.

This study attempts to determine the need and economic justification for modifying the existing navigation project for the harbor in accordance with the desires of local interests.

Maps

Edgartown Harbor
Edgartown Harbor, general plan
Edgartown Harbor, survey map
Edgartown Harbor, Katoma Bay,
barrier beach plan section
Edgartown Harbor, shoreline changes
1846-1967

1 inch = 1,100 yards
1 inch = 3,000 feet
1 inch = 600 feet
1 inch = 600 feet
1 inch = 2,400 feet
NERBC

Department of the Army, Corps of Engineers, Interim Report on
Charles River for Flood Control and Navigation, Lower Charles
River, May, 1968.

This report presents results of studies with respect to flood control and navigation on the Charles River and gives detailed consideration to the construction of a dam with locks and a pumping station at Warren Avenue, Boston for flood protection and improvement to navigation. Also included is information on water quality and geology.

Maps

Charles River Shoreline (1814, 1836, 1881)

3 maps	1 inch = 1,500 feet
Lower basin flood area	1 inch = 5,300 feet
Charles River Watershed	1 inch = 2.3 miles
Study area	1 inch = 6,700 feet
Plan and profile	1 inch = 5,700 feet
Charles River Dam	1 inch = 140 feet
Charles River Basin elevation control	
(alternative sites)	1 inch = 280 feet
Charles River Basin elevation control	
(proposed dam)	1 inch = 60 feet
Charles River Basin and Environs	1 inch = 1,500 feet
General relief map	1 inch = 900 feet
Surficial geology	1 inch = 2.7 miles
Bedrock geology	1 inch = 2.7 miles
Muddy River	1 inch = 1,500 feet
Major navigation reach, facilities concerned with commercial and recreational boating	1 inch = 4,000 feet
Sewers affecting Charles River water quality	(no scale)
Location of sampling stations	1 inch = 6,500 feet
	NERBC

Department of the Army, Corps of Engineers, Water Resources Development in Massachusetts, January 1, 1969.

This report discusses the various water resource projects conducted in Massachusetts by the Army Corps of Engineers. These projects consist of works for navigation, flood control, shore protection, tidal flood protection, and other related purposes.

Maps

Authorized federal projects	
in Massachusetts	1 inch = 15 miles
River basins in Massachusetts	1 inch = 34 miles
Connecticut River Basin reservoir projects	no scale
Merrimac River Basin	1 inch = 16 miles
Flood control projects in the	
Thames River Basin	1 inch = 9 miles
Hurricanes affecting New England	1 inch = 65 miles
Blackstone River Basin flood control projects	1 inch = 5.8 miles
	NERBC

Department of the Army, Corps of Engineers, Water Resources Development in Rhode Island, January 1, 1969.

This report discusses the various water resource projects conducted in Rhode Island by the Army Corps of Engineers. These projects consist of works for navigation, flood control, shore protection, tidal flood protection, and other related purposes.

Maps

Authorized federal projects in Rhode Island	
	1 inch = 10 miles
Flood control projects, Blackstone River Basin	
	1 inch = 5.8 miles
Hurricanes affecting New England	1 inch = 65 miles
Point Judith multiple-purpose project	1 inch = 4,000 feet
	NERBC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Irrigation and Drainage

United States Department of Agriculture, Economic Research Service,
Natural Resource Economics Division, Water Resources Branch,
Water Resources in New England and Related Areas, An Annotated
Bibliography, Adam A. Sokoloski, August, 1969.

This report contains an annotated bibliography with some of the information pertaining to the Southeastern New England study area. The topics covered are: irrigation and soil moisture, water quality, floods, resource inventory, and management and planning.

NERBC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Minerals

United States Department of the Interior, Sand and Gravel on the
Continental Shelf off the Northeastern United States, 1968.

This report discusses the origin of sand and gravel off
of the northeastern coast of the United States and the
potential uses of this sand and gravel.

Maps

Sample localities on the continental margin off
Northeastern United States 1 inch = 75 kilometers
Distribution and principal model grain size of sand on the
continental margin off Northeastern United States 1 inch = 75 kilometers
Distribution of gravel on the continental margin off
Northeastern United States 1 inch = 75 kilometers

MWRC

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Health Aspects

Commonwealth of Massachusetts, Special Report of the Department of Public Health Relative to the Preparation of Plans and Maps for the Disposal of Sewage in the Merrimack River Valley, June, 1969.

This report describes the watershed, the volume and characteristics of sewage, sanitary conditions, standards of water quality, the amount of treatment needed, and proposed methods of sewerage treatment in the Merrimack River Valley.

Maps

Merrimack River Basin	1 inch = 12 miles
Proposed sewage works	1 inch = 12 miles
Sampling stations	1 inch = 2 miles
Boring stations	1 inch = 2 miles
Lowell and vicinity portions of existing sewerage system and recommended sewage works	1 inch = 1,800 feet
Lawrence and vicinity sewage system	1 inch = 1,300 feet
Haverhill sewage system	1 inch = 1,400 feet

MWRC

Commonwealth of Massachusetts, Special Report of Public Health Relative to the Preservation of the Purity of Certain Water Supplies Within the Commonwealth, December, 1965.

Included in this report are the laws pertaining to water supply, prevention of pollution and taxes on land held for municipal purposes. It also contains rules for sanitary protection of public water supplies, the rules and regulations of the Department of Public Health and a discussion of diseases which can be obtained from water.

NERBC

Commonwealth of Massachusetts, Water Resources Commission,
Division of Water Pollution Control, River Basin Classifications,
March 6, 1967.

Present and proposed classifications of water in Massachusetts are given with regard to public health, public enjoyment, propagation and protection of fish and wildlife, and economic and social development.

Maps

Blackstone River Basin	1 inch = 4.5 miles
Boston Harbor	1 inch = 2.5 miles
Charles River Basin	1 inch = 4.5 miles
Chicopee River Basin	1 inch = 12.5 miles
Concord, Assabet, and Sudbury River Basin	1 inch = 4.5 miles
Connecticut River Basin	1 inch = 6.7 miles
Deerfield River Basin	1 inch = 4.5 miles
Farmington River Basin	1 inch = 4.5 miles
French River Basin	1 inch = 4.5 miles
Hoosic River Basin	1 inch = 4.5 miles
Housatonic River Basin	1 inch = 4.5 miles
Ipswich River Basin	1 inch = 6.7 miles
Kiekamuit, Warren, and Barrington River Basin	1 inch = 3 miles
Merrimack River Basin	1 inch = 5.3 miles
Millers River Basin	1 inch = 4.5 miles
Mystic River Basin	1 inch = 2.5 miles
Nashua River Basin	1 inch = 4.5 miles
Neponset River Basin	1 inch = 4.5 miles
North Coastal	1 inch = 6.7 miles
Parker River Basin	1 inch = 3.5 miles
Quinebaug River Basin	1 inch = 4.5 miles
Scantic River Basin	1 inch = 1.7 miles
Shawsheen River Basin	1 inch = 6.7 miles
South Coastal	1 inch = 6.7 miles
Taunton River Basin	1 inch = 4.5 miles
Ten Mile River Basin	1 inch = 2.7 miles
Westfield River Basin	1 inch = 4.5 miles
Weymouth River Basin	1 inch = 3 miles

NERBC

Commonwealth of Massachusetts, Water Resource Commission,
Division of Water Pollution Control, Water Quality Standards,
March 6, 1967.

A classification system is adopted for Massachusetts' waters to designate future usage with such factors as public health, public enjoyment, propagation and protection of fish and wildlife, and economic and social development considered.

NERBC

Rhode Island Department of Health, Division of Water Pollution,
Water Quality Standards for Interstate Waters. June, 1967.

This report details the water quality classifications of the interstate waters of Rhode Island. The report discusses water quality as a whole and then each water body is examined.

Maps

Proposed classification of water quality	1 inch = 1.65 miles
Present classification of water quality	1 inch = 1.65 miles

NERBC

LEGAL AND INSTITUTIONAL ENVIRONMENT

Commonwealth of Massachusetts, Special Report of Public Health
Relative to the Preservation of the Purity of Certain Water Supplies
Within the Commonwealth, December, 1965.

Included in this report are the laws pertaining to water supply, prevention of pollution and taxes on land held for municipal purposes. It also contains rules for sanitary protection of public water supplies, the rules and regulations of the Department of Public Health and a discussion of diseases which can be obtained from water.

NERBC

Commonwealth of Massachusetts, Department of Community Affairs, Ways and Waters in Massachusetts, by Edwin H. Abbott, Jr., reprinted October, 1969 from Harvard Law Review, March, 1915.

This report discusses the arising legal problems as to the relative rights of the public and of abutters regarding construction of ways across waters in Massachusetts and considers the rules of law which govern their solution.

NERBC

Commonwealth of Massachusetts, Department of Natural Resources and Association of Conservation Commissions, Massachusetts Conservation Commission Handbook, 1968.

This report defines what a Conservation Commission is and discusses the following: operation of a commission; conservation districts and their federal programs; how to acquire and maintain land; easements for conservation; taxation and conservation; state programs; federal grant programs; zoning and other police powers; and private conservation corporations, trusts and clubs.

NERBC

Commonwealth of Massachusetts, Legislative Research Council,
Rights to Surface and Sub-Surface Water in Massachusetts,
February 13, 1957.

This report details the effects of the many and varied uses of water. It discusses water as to the water law in Massachusetts, water resources and riparian doctrines, uses of water, industry, agriculture, recreation, hydroelectric power, navigation, flood control, pollution, groundwater, management programs, and problems of water.

Maps

Points of past litigation in Massachusetts (1880-1955)

1 inch = 18 miles

Drainage basins in Massachusetts

1 inch = 18 miles

NERBC

Commonwealth of Massachusetts, Legislative Research Council,
State Licensing and Control of Use of Tidelands, January 26,
1959.

This report is a study of practices in Massachusetts and elsewhere with respect to state licensing and control of the use of tidelands. It discusses this under the following topics: public and private rights; history of Massachusetts tidelands law; license procedure in Massachusetts; possible legislation; and constitutional limitations on legislation.

NERBC

Commonwealth of Massachusetts, Office of the Secretary, Origin, Development and Activities of the Metropolitan District Commission,
November, 1964.

This report describes the history of the Boston area's sewer and drainage systems, the investigations which led to the establishment of the Metropolitan Sewerage District, the development of metropolitan parks and water districts, and the reorganization of these groups under the MDC. It also discusses the operational procedures of the MDC.

NERBC

Commonwealth of Massachusetts, Water Resources Commission, Compilation and Summarization of the Massachusetts General Laws, Special Laws, Pertinent Court Decisions, etc. Relating to Water and Water Rights, by Howard S. Willard, 1970.

This report lists special and general statutes enacted by the general court since colonial times dealing with water and water rights in the Commonwealth of Massachusetts.

MWRC

Commonwealth of Massachusetts, Water Resources Commission, Comprehensive Water and Related Land Resources Investigation, Connecticut River Basin, Appendix J, 1969.

This report is a summary of state laws, policies and programs pertaining to the water and related land resources of the Commonwealth, including a detailed description of the administrative structure and a bibliography.

NERBC

Frankel, Moses M., Law of Seashore, Waters and Water Courses, Maine and Massachusetts, 1969.

This report contains the laws and how they developed from colonial times that pertain to seashores, waters and water courses in the two states.

NERBC

Hale, Richard K., A Brief History of the Development of the Division of Waterways and Public Lands of the Massachusetts Department of Public Works, April, 1926.

This report traces the events leading to the development of the Division of Waterways and Public Lands from the pre-revolution days up to about 1920.

NERBC

Metropolitan Area Planning Council, Open Space and Recreation Program for Metropolitan Boston, Volume 4, Massachusetts Open Space Law, April, 1969.

This is a study of Boston Metropolitan area's ability to control use of its land in the interest of preserving open space. It shows

government involvement in open space land control and details laws concerning land use.

NERBC

Rhode Island, Report of the Governor's Committee on the Coastal Zone,
March, 1970.

This report presents recommendations for creation of a mechanism within the state government which can formulate policies for the coastal zone, prepare plans based on these policies, and coordinate public and private actions toward the achievement of the objectives set by these plans. In addition, the activities and problems of the area are delineated along with an inventory of governmental responsibilities.

Maps

The Rhode Island Coastal Zone	1 inch = 20,000 feet
Recreational fishing, swimming and access areas	1 inch = 20,000 feet
Open space areas	1 inch = 20,000 feet
Polluted areas	1 inch = 20,000 feet
Federal military areas	1 inch = 20,000 feet
Commercial fishing areas	1 inch = 20,000 feet
Transportation	1 inch = 20,000 feet
Special navigation areas	1 inch = 20,000 feet
Generalized existing land use	1 inch = 20,000 feet
Municipal zoning	1 inch = 20,000 feet

NERBC

Rhode Island Statewide Comprehensive Transportation and Land Use
Program, Public Rights-of-Way to the Shore, March, 1970.

This report concerns itself with three major subjects: first, the legal and legislative basis for the establishment and existence of all public rights-of-way, second, an actual graphic and pictorial inventory of all public rights-of-way in the state, third, recommendations for the development of certain rights-of-way.

Maps

Public rights-of-way inventory, State of Rhode Island (1969)	1 inch = 22,000 feet
Maps of sections of towns showing public rights-of-way	
Westerly (16 maps)	1 inch = 80 feet
Charlestown (3 maps)	1 inch = 100 feet
South Kingston (2 maps)	1 inch = 100 feet
Narragansett (9 maps)	1 inch = 100 feet
(2 maps)	1 inch = 80 feet
Warwick (22 maps)	1 inch = 100 feet
East Providence (6 maps)	1 inch = 100 feet
Barrington (2 maps)	1 inch = 80 feet
Warren (10 maps)	1 inch = 200 feet
Bristol (10 maps)	1 inch = 50 feet
(6 maps)	1 inch = 100 feet
Portsmouth (12 maps)	1 inch = 100 feet
Middleton (3 maps)	1 inch = 100, 150, 50 feet
Newport (2 maps)	1 inch = 100, 200 feet

NERBC

Rhode Island, Water Resources Board, Historical, Legal, and Institutional Environment of Water and Related Land Resources in Rhode Island, Section A- State Laws, 1970.

This report provides a brief history of the impact water and related land has had on the development of Rhode Island and then discusses state laws pertaining to the following areas: impact of water and related land resources reflected in laws; statutes; surface water; access to lakes and streams; diffused surface water; groundwater; regulatory authority; water quality; and eminent domain.

NERBC

Rhode Island, Water Resources Board, Historical, Legal and Institutional Environment of Water and Related Land Resources in Rhode Island, The Development of Basic Water Resource Laws and Policies in Rhode Island, 1970.

This report presents an analysis of the legal role of the State of Rhode Island in relation to other levels of government and private interests in the field of water rights and summarizes the characteristics of the major alternative systems.

NERBC

Scheffey, Conservation Commissions in Massachusetts, Conservation Foundation Report, 1969.

This report is a history of the development of town conservation commissions in the Commonwealth. A chapter at the end chronicles the conservation commission movement in other states including Rhode Island.

NERBC

United States Department of Agriculture, Economic Research Service, Natural Resource Economics Division, Water Resources Branch, Water Resources in New England and Related Areas, An Annotated Bibliography, Adam A. Sokoloski, August, 1969.

This report contains an annotated bibliography with some of the information pertaining to the Southeastern New England study area. The topics covered are: irrigation and soil moisture, water quality, floods, resource inventory, and management and planning.

NERBC

Whittlesey, John J., Law of the Seashore, Tidewaters and Great Ponds, in Massachusetts and Maine, 1932.

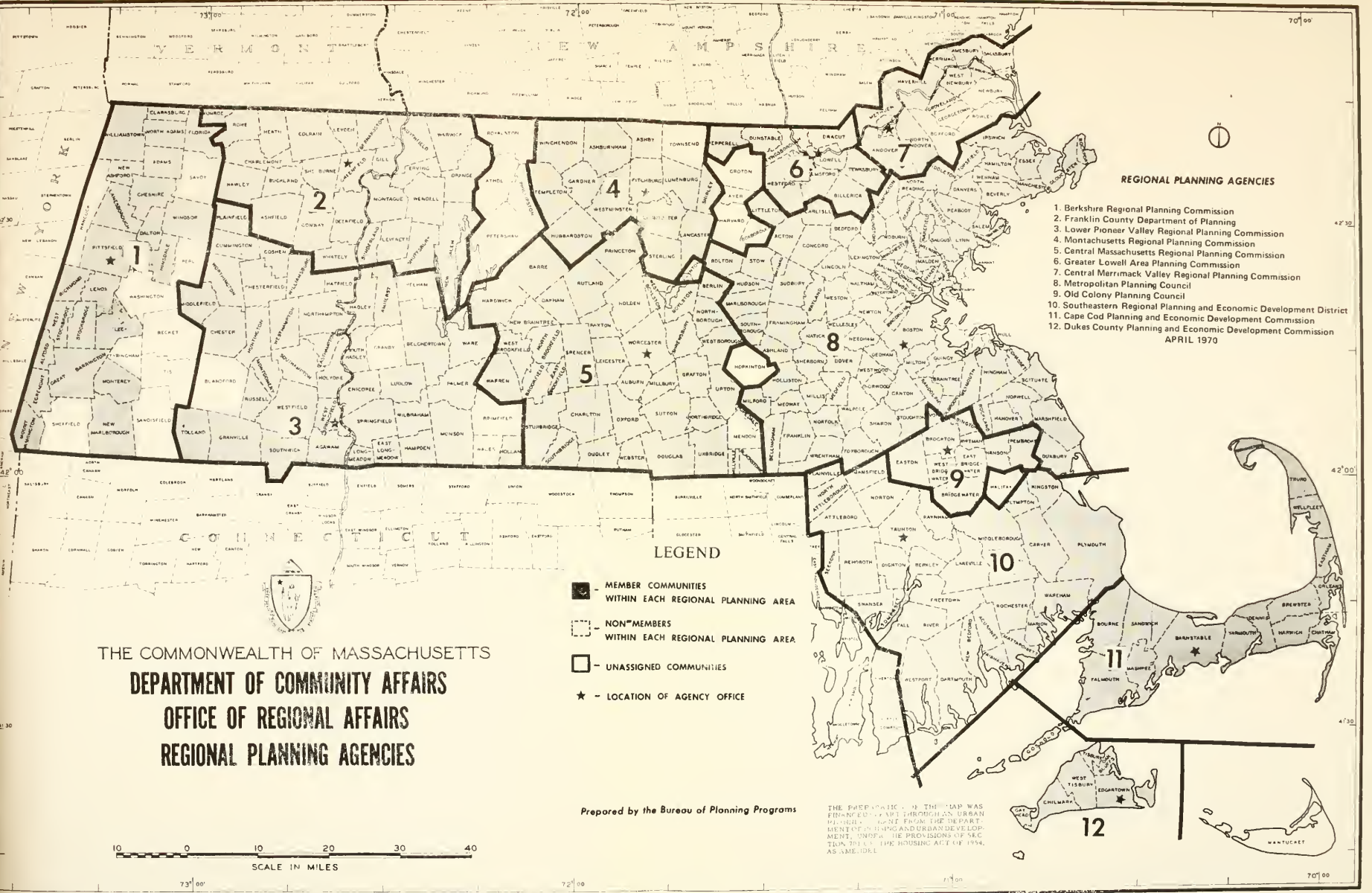
This report is a history of the development of laws regulating ownership and public and private rights to the use of the seashore, tidewaters and great ponds in Massachusetts and Maine.

NERBC

APPENDIX A

Additional Information on Regional and Local

Planning



REGIONAL PLANNING AGENCIES

1. Berkshire Regional Planning Commission
 2. Franklin County Department of Planning
 3. Lower Pioneer Valley Regional Planning Commission
 4. Montachusett Regional Planning Commission
 5. Central Massachusetts Regional Planning Commission
 6. Greater Lowell Area Planning Commission
 7. Central Merrimack Valley Regional Planning Commission
 8. Metropolitan Planning Council
 9. Old Colony Planning Council
 10. Southeastern Regional Planning and Economic Development District
 11. Cape Cod Planning and Economic Development Commission
 12. Dukes County Planning and Economic Development Commission
- APRIL 1970

LEGEND

- MEMBER COMMUNITIES WITHIN EACH REGIONAL PLANNING AREA
- - - NON-MEMBERS WITHIN EACH REGIONAL PLANNING AREA
- - UNASSIGNED COMMUNITIES
- ★ - LOCATION OF AGENCY OFFICE

Prepared by the Bureau of Planning Programs

THE BUREAU OF PLANNING PROGRAMS WAS ESTABLISHED BY THE DEPARTMENT OF COMMUNITY AFFAIRS IN 1965. IT IS THE DEPARTMENT'S POLICY TO DEVELOP AND MAINTAIN A COORDINATED PLANNING PROGRAM FOR THE STATE OF MASSACHUSETTS. THE BUREAU OF PLANNING PROGRAMS IS THE DEPARTMENT'S OFFICE FOR THE DEVELOPMENT AND MAINTENANCE OF A COORDINATED PLANNING PROGRAM FOR THE STATE OF MASSACHUSETTS. THE BUREAU OF PLANNING PROGRAMS IS THE DEPARTMENT'S OFFICE FOR THE DEVELOPMENT AND MAINTENANCE OF A COORDINATED PLANNING PROGRAM FOR THE STATE OF MASSACHUSETTS.

LISTING OF REGIONAL PLANNING STUDIES
WITHIN SOUTHEASTERN NEW ENGLAND

MASSACHUSETTS

I. Central Merrimack Valley Regional Planning District

1. Guiding Land Development in the Central Merrimack Valley	NERBC
2. Bibliography of Studies Pertaining to Planning in the Central Merrimack Valley	NERBC
3. Implementation Techniques for the Central Merrimack Valley	NERBC
4. Regional Fiscal Program for the Central Merrimack Valley	NERBC
5. Transportation Prospects for the Central Merrimack Valley	NERBC
6. Regional Resources and Facilities in the Central Merrimack Valley	NERBC
7. Future Development in the Central Merrimack Valley	NERBC
8. Toward More Effective Regional Planning	NERBC
9. Population Report	NERBC
10. The Future Use and Classification of the Merrimack River	NERBC
11. Development Trends in the Central Merrimack Valley	CMVRPD
12. Land for Industry in the Central Merrimack Valley	CMVRPD

II. Metropolitan Area Planning Council

1. Open Space and Recreation Reports - July 1967

Volume I	Open Space and Recreation Plan and Program for Metropolitan Boston	NERBC
Volume II	Open Space and Recreation Program for Metro- politan Boston - Boston Harbor	NERBC
Volume III	Open Space and Recreation Program for Metro- politan Boston - The Mystic, Charles and Neponset Rivers	NERBC
Volume IV	Open Space and Recreation Program for Metro- politan Boston - Massachusetts Open Space Law	NERBC
Volume V	A Program for Regional Athletic Facilities for Metropolitan Boston	MAPC

2. Economic Base & Population Study

Volume I	Historical Analysis, January 1967	MAPC
Volume II	Prospects for Economic Growth, February 1967	MAPC
Volume III	Population Projections for the Eastern Massa- chusetts Region, March 1967	MAPC

3. Population Projections 1990- April 1968

NERBC

4. Empiric Land Use Forecasting Model

Final Report, February 1967	MAPC
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5. Comprehensive Land Use Inventory Report, March 1967

MAPC

6. Solid Waste Disposal Program for Metropolitan Boston, April 1967

MAPC

7. Water & Sewer Facilities

(1) Inventory of Water and Sewer Facilities, May 1967

NERBC

(2) Projected Needs and Current Proposals for Water and Sewer Facilities, July 1969

NERBC

8. Guides for Progress: Development Opportunities for Metropolitan Boston - April 1968
NERBC
9. Draft Reports on Supporting Studies for Mass. P-34 Project
 - a. Residential Renewal in the Boston Metropolitan Area
September 1967
MAPC
 - b. Hospital and Health Facilities in Eastern Massachusetts
August 1967
MAPC
10. Community Assistance Guides
 - No. 1 - Urban Beautification and Improvement Program,
September 1966
 - No. 2 - Open Space Land Programs, November 1966
 - No. 3 - Land and Water Conservation Fund Program,
November 1966
 - No. 4 - Massachusetts Conservation "Self-Help" Act,
November 1966
MAPC
11. Housing Reports
 - Federal and State Assisted Housing Programs - Volumes 1-3
 - Volume 1: Catalog of Housing Programs, October 1968
 - Volume 2: Housing Programs for Low-Income Families and Elderly Households, April 1969
 - Volume 3: Housing Programs for Moderate-Income Households and Renewal Areas and Programs for Land and Community Development, June 1969
 - Housing Metropolitan Boston - Volumes 1-2
 - Volume 1: Housing Demand and Housing Supply, 1950-1980 to be published
 - Volume 2: Analysis and Recommendations, to be published
MAPC

III. Old Colony Planning Council

Phase #1

1. Report to Old Colony Planning Council, Brockton, Massachusetts on Phase 1 of Water and Sewerage Study, September 1969.

This report identifies the existing situation in the area.

Phase #2

1. Report to Old Colony Planning Council, Brockton, Massachusetts on Phase 2 of Water and Sewerage Study, February 1970.

This report identifies future needs and develops alternatives to these in the area.

Phase #3

1. Report to Old Colony Planning Council, Brockton, Massachusetts on Phase 3 of Water and Sewerage Study, in progress now.

The objectives of the report will be to develop a proposed plan and schedule of major facilities to implement the plan.

Note: Reports available at Old Colony Planning Council.

IV. Southeastern Regional Planning and Economic Development District

1. The Southeastern Massachusetts Comprehensive Transportation and Arterial Study, 1969 DPW
2. The Fall River Area Comprehensive Transportation and Arterial Study, 1968 DPW
3. Report #12: Regional Planning and the Community, 1965 SERPEDD
4. Report #11: Economic Resources and Highways, 1965 SERPEDD
5. Report #10: A Regional Plan for Southeastern Massachusetts, 1962 SERPEDD

V. Cape Cod Planning and Economic Development Commission

Number	Title	Date	For Public Distribution
* #1	Review of Prior Regional Research & Planning Studies for Cape Cod	Nov. 1968	
#2	Federal & State Aid Coordination	Nov. 1968	
#3	A Proposal for an Annual Municipal Survey of Household Data	Nov. 1968	
#4	Status of Existing Refuse Disposal Facilities	Dec. 1968	
#5	The Resident Population of Barnstable County	Feb. 1969	\$2.00
#6	Transportation - Part I: Aviation, Water, Rail, Freight	Jun. 1969	\$2.00
	Transportation - Part II: Highways	Jul. 1969	\$2.00
#7	Regional Public Facilities - Part I: Refuse Disposal Facilities	Aug. 1969	
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#13	Recommendations for Enhancement of Zoning & Subdivision Controls for Cape Cod	Jun. 1970	

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STATUS OF LOCAL PLANNING

Boston Metropolitan Area

* City

- None

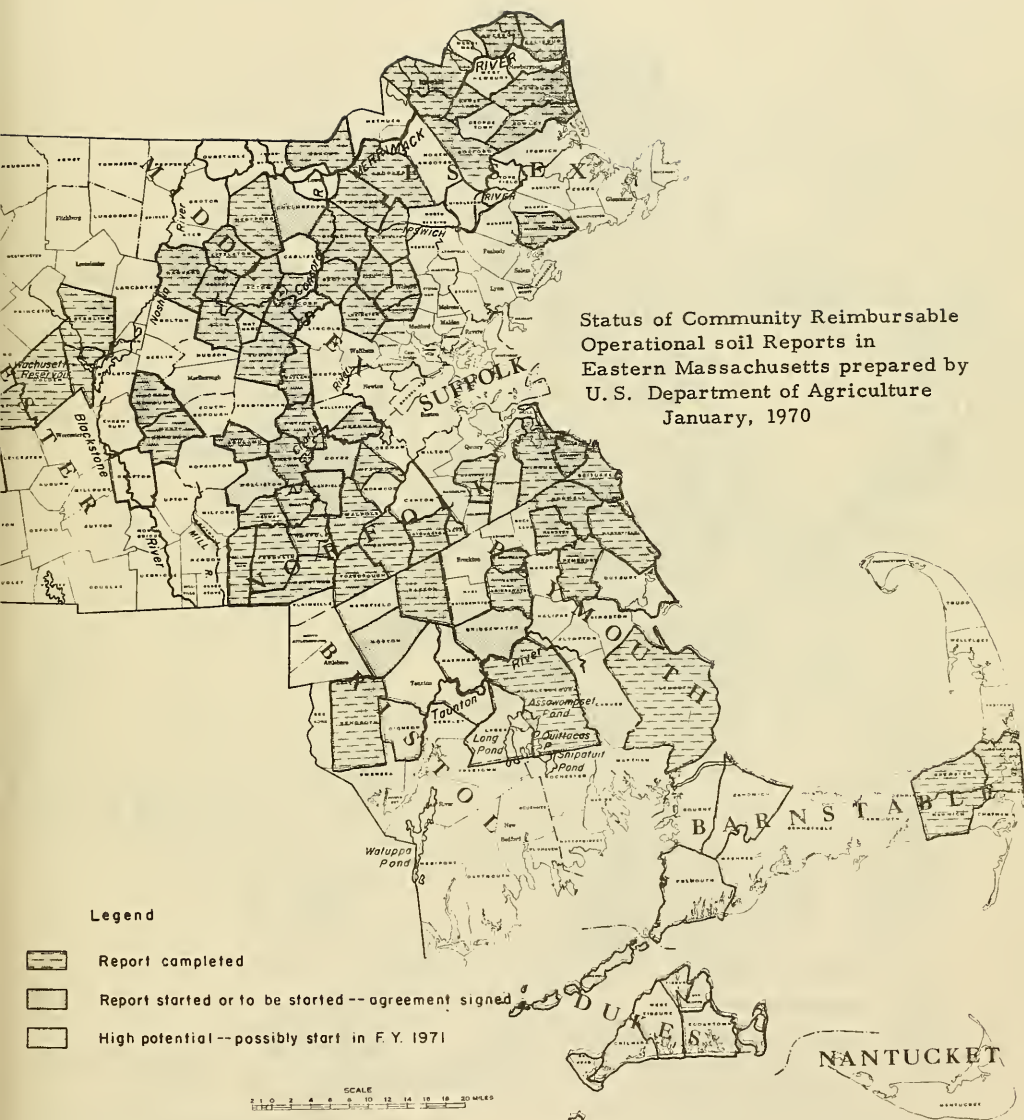
P Pending

July, 1970

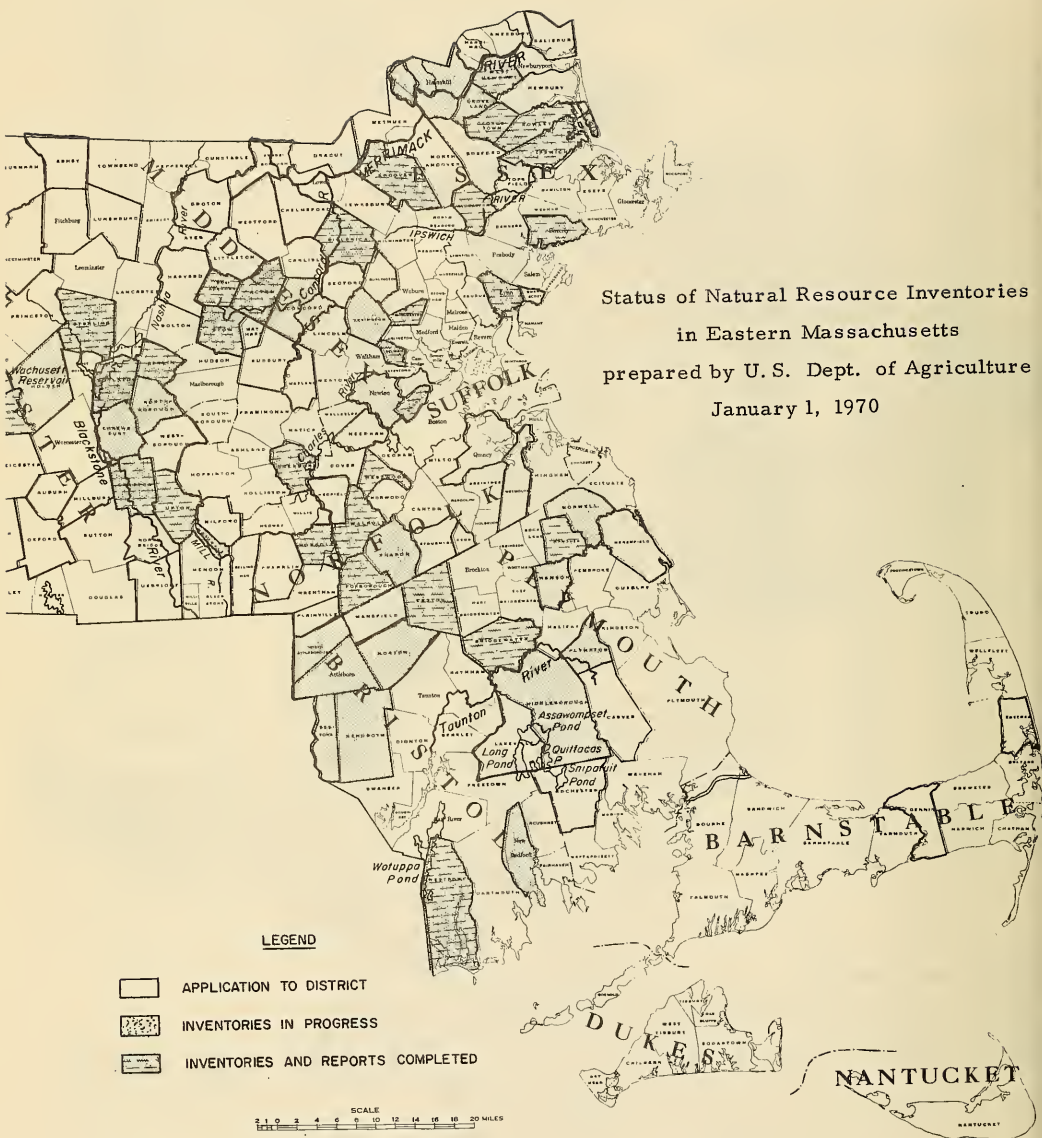
City or Town MAPC Member	City or Town Non- Member	County	Available for Reference		
			Master Plan	Zone Ord.	Zone Map
	Abington	Plymouth	1962	1968	1962
	Andover	Essex	1965	1964	1966
Arlington		Middlesex	1962	1967	1968
Ashland		Middlesex	1954	1964	1965
	Avon	Norfolk	1964	1964	1964
Bedford		Middlesex	(1964)	1969	1969
Bellingham		Norfolk	1963	1969	1969
Belmont		Middlesex	(1963)	1966	1966
*Beverly		Essex	P	1966	1966
	Billerica	Middlesex	1961	1967	1966
	Blackstone	Worcester	-	1969	1969
*Boston		Suffolk	1965	1968	1968
	Boxford	Essex	1961	1962	1962
Braintree		Norfolk	1963	1968	1968
	Bridgewater	Plymouth	-	1969	1969
*Brockton		Plymouth	1969	1968	1967
Brookline		Norfolk	1966	1970	1969
Burlington		Middlesex	1965	1969	1969
*Cambridge		Middlesex	1965	1970	1970
Canton		Norfolk	1959	1963	1967
*Chelsea		Suffolk	1962	1967	1960
Cohasset		Norfolk	1961	1969	1969
Danvers		Essex	(1962)	1961	1961
Dedham		Norfolk	(1967)	1968	1968
Dover		Norfolk	(1958)	1967	1959
Duxbury		Plymouth	1969	1969	1966
	E. Bridgewater	Plymouth	1959	1967	1967
	Easton	Bristol	-	1962	1969
Essex		Essex	-	-	-
*Everett		Middlesex	1965	1965	1960
Foxborough		Norfolk	(1960)	1969	1968
Framingham		Middlesex	1967	1958	1963
Franklin		Norfolk	(1960)	1970	1970
	Georgetown	Essex	1962	1970	1969
*Gloucester		Essex	1963	1967	-
	Groveland	Essex	1964	1967	1967
	Halifax	Plymouth	1964	1966	1966
Hamilton		Essex	1965	1967	1965
Hanover		Plymouth	1969	1969	1969
	Hanson	Plymouth	1966	1968	1969
	Harvard	Worcester	-	1969	-
Hingham		Plymouth	P	1968	1969
Holbrook		Norfolk	1966	1966	1969
Holliston		Middlesex	1962	(1969)	1968
	Hopedale	Worcester	-	1960	1960
	Hopkinton	Middlesex	(1957)	1960	1960
Hudson		Middlesex	1964	1969	1969

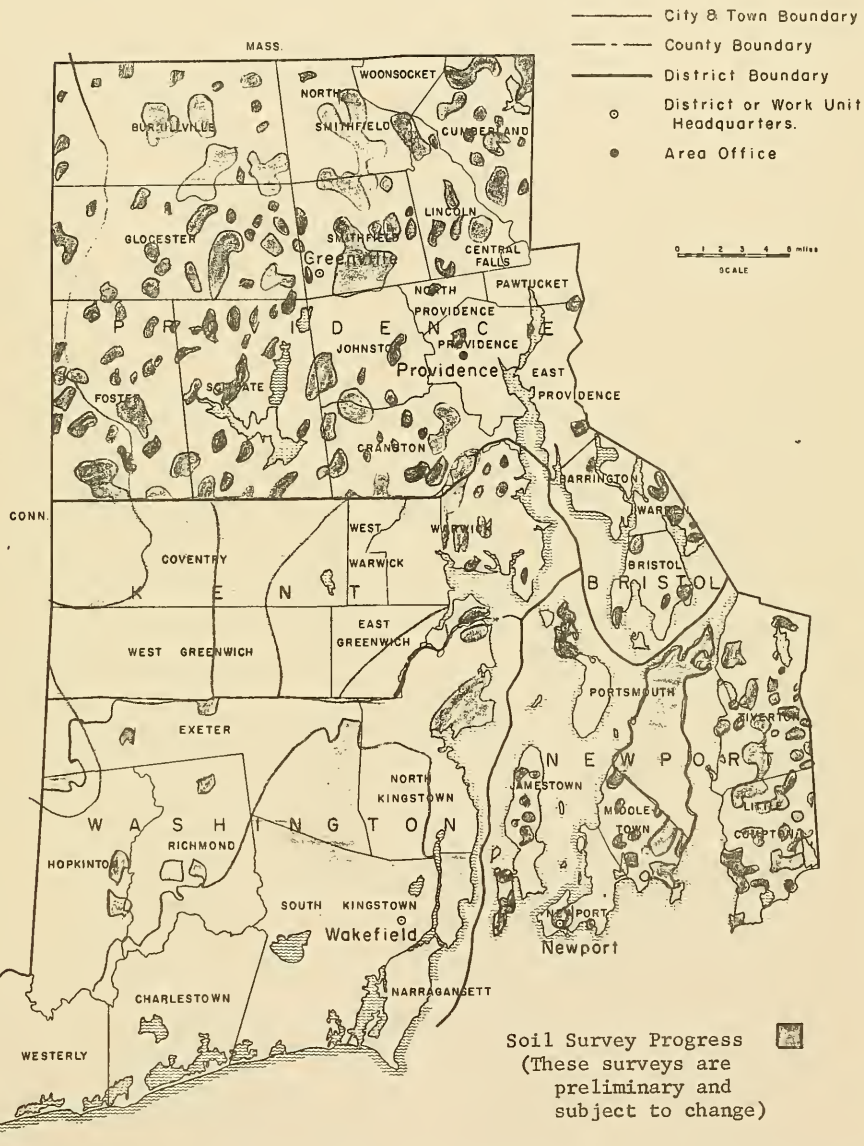
City or Town MAPC Member	City or Town Non- Member	County	Available for Reference		
			Master Plan	Zone Ord.	Zone Map
Hull		Plymouth	1961	1957	1957
Ipswich		Essex	1964	1963	1963
Lexington		Middlesex	1968	1969	1969
Lincoln		Middlesex	(1965)	1965	1959
Lynn*		Essex	1967	1967	1966
Lynnfield		Essex	(1955)	1965	1968
Malden*		Middlesex	1960	1968	1968
Manchester		Essex	1969	1968	1967
Marblehead		Essex	-	1968	1964
Marlborough*		Middlesex	1962	1966	1966
Marshfield		Plymouth	1962	1966	1966
Medfield		Norfolk	1964	1967	1967
Medford*		Middlesex	1964	1966	1968
Medway		Norfolk	(1963)	(1963)	(1954)
Melrose*		Middlesex	1962	1966	1965
	Mendon	Worcester	-	1961	1961
Middleton		Essex	1965	1966	1965
Milford		Worcester	1965	1965	1968
Millis		Norfolk	-	1969	1959
	Millville	Worcester	-	1964	-
Milton		Norfolk	-	1965	1965
Nahant		Essex	(1962)	1963	1963
Natick		Middlesex	1961	1969	1968
Needham		Norfolk	1966	1968	1969
	Newbury	Essex	1965	1968	1968
	Newburyport*	Essex	(1965)	1965	1965
Newton*		Middlesex	1969	1968	1968
Norfolk		Norfolk	1965	1968	1968
	N. Andover	Essex	-	1969	1964
	Northborough	Worcester	1961	1966	1967
	Northbridge	Worcester	1965	1967	1967
N. Reading		Middlesex	1959	1968	1969
Norwell		Plymouth	P	1968	1968
Norwood		Norfolk	-	1968	1970
Peabody*		Essex	1970	1968	1965
Pembroke		Plymouth	1959	1969	1969
	Plainville	Norfolk	1964	1968	1964
Quincy*		Norfolk	1965	1965	1968
Randolph		Norfolk	1959	1965	1965
Reading		Middlesex	1961	1968	1968
Revere*		Suffolk	1958	1958	1964
Rockland		Plymouth	(1967)	1969	1969
Rockport		Essex	1967	1969	1969
	Rowley	Essex	1963	1970	1970
Salem*		Essex	1963	1965	1965
Saugus		Essex	(1958)	1969	(1964)

City or Town MAPC Member	City or Town Non- Member	County	Available for Reference		
			Master Plan	Zone Ord.	Zone Map
Scituate		Plymouth	(1958)	1969	1964
Sharon		Norfolk	1960	1969	1969
Sherborn		Middlesex	1958	1968	1969
Somerville*		Middlesex	1968	1960	1960
Southborough		Worcester	1962	1969	1964
Stoneham		Middlesex	1961	1969	1967
Stoughton		Norfolk	1960	1968	1969
Sudbury		Middlesex	1965	1969	1969
Swampscott		Essex	-	1963	1963
	Tewksbury	Middlesex	1954	1969	1967
Topsfield		Essex	1961	1962	1969
	Upton	Worcester	1966	1961	1966
	Uxbridge	Worcester	1964	1966	1967
Wakefield		Middlesex	1961	1968	1966
Walpole		Norfolk	1963	1967	1963
Waltham*		Middlesex	1963	1969	1969
Watertown		Middlesex	1963	1968	1965
Wayland		Middlesex	1966	1966	1968
Wellesley		Norfolk	1965	1969	1969
Wenham		Essex	1962	1965	1965
	Westborough	Worcester	1966	1969	1968
Weston		Middlesex	1965	1965	1969
Westwood		Norfolk	1960	1969	1966
	W. Bridgewater	Plymouth	-	1969	1957
	W. Newbury	Essex	1961	1968	1967
Weymouth		Norfolk	1964	1965	1964
	Whitman	Plymouth	1961	1970	1970
Wilmington		Middlesex	(1960)	1968	1965
Winchester		Middlesex	-	1964	1968
Winthrop		Suffolk	1959	1967	1967
Woburn*		Middlesex	(1958)	(1963)	(1961)
Wrentham		Norfolk	1961	1968	1968



Status of Natural Resource Inventories
in Eastern Massachusetts
prepared by U. S. Dept. of Agriculture
January 1, 1970





July 1964

USDA PCS WASHINGTON, D.C. 20250

APPENDIX B

Population of Cities and Towns in the
Southeastern New England Region

Population of Cities and Towns In the
Southeastern New England Region

Massachusetts

City or Town	County	Population #		Percent Change
		1970	1960	
Abington Town	Plymouth	12,382	10,607	16.7
Acushnet Town	Bristol	7,703	5,755	33.8
*Andover Town	Essex	23,277	17,134	35.9
Arlington Town	Middlesex	52,720	49,953	5.5
*Ashland Town	Middlesex	8,900	7,779	14.4
Attleboro City	Bristol	32,226	27,118	18.8
*Auburn Town	Worcester	15,397	14,047	9.6
Avon Town	Norfolk	5,387	4,301	25.2
Barnstable Town	Barnstable	18,876	13,465	40.2
Bellingham Town	Norfolk	13,828	6,774	104.1
Belmont Town	Middlesex	27,750	28,715	-3.4
Berkley Town	Bristol	2,022	1,609	25.7
Beverly City	Essex	38,073	36,108	5.4
*Billerica Town	Middlesex	31,284	17,867	75.1
Blackstone Town	Worcester	6,501	5,130	26.7
Boston City	Suffolk	628,215	697,197	-9.9
Bourne Town	Barnstable	12,334	14,011	-12.0
*Boxford Town	Essex	4,001	2,010	99.1
*Boylston Town	Worcester	2,745	2,367	16.0
Braintree Town	Norfolk	35,373	31,069	13.9
Brewster Town	Barnstable	1,694	1,236	37.1
Bridgewater Town	Plymouth	12,585	10,276	22.5
Brockton City	Plymouth	87,444	72,813	20.1
Brookline Town	Norfolk	58,090	54,044	7.5
*Burlington Town	Middlesex	22,114	12,852	72.1
Cambridge City	Middlesex	98,942	107,716	-8.2
Canton Town	Norfolk	17,089	12,771	33.8
Carver Town	Plymouth	2,389	1,949	22.6
Chatham Town	Barnstable	4,337	3,273	32.5
Chelsea City	Suffolk	30,122	33,749	-10.8
Chilmark Town	Dukes	258	238	8.4
Cohasset Town	Norfolk	6,943	5,840	18.9
Danvers Town	Essex	26,133	21,926	19.2
Dartmouth Town	Bristol	18,691	14,607	28.0
Dedham Town	Norfolk	27,233	23,869	14.1
Dennis Town	Barnstable	5,792	3,727	55.4
Dighton Town	Bristol	4,635	3,769	23.0

#Source: 1970 Census of population preliminary reports

*Part of town or city is not within the SENE region

Massachusetts (continued)

City or Town	County	#Population		Percent Change
		1970	1960	
*Douglas Town	Worcester	2,920	2,559	14.1
Dover Town	Norfolk	4,495	2,846	57.9
Duxbury Town	Plymouth	7,625	4,727	61.3
East Bridgewater Town	Plymouth	8,311	6,139	35.4
Eastham Town	Barnstable	1,879	1,200	56.6
Easton Town	Bristol	12,249	9,078	34.9
Edgartown Town	Dukes	1,493	1,474	1.3
Essex Town	Essex	2,637	2,238	17.8
Everett City	Middlesex	42,216	43,544	-3.1
Fairhaven Town	Bristol	16,371	14,339	14.2
Fall River City	Bristol	95,679	99,942	-4.3
Falmouth Town	Barnstable	15,457	13,037	18.6
Foxborough Town	Norfolk	14,231	10,136	40.4
Franklin Town	Norfolk	17,825	10,530	69.3
Freetown Town	Bristol	4,255	3,039	40.0
Gay Head Town	Dukes	90	103	-12.6
*Georgetown Town	Essex	5,271	3,755	40.4
Gloucester City	Essex	27,690	25,789	7.4
Gosnold Town	Dukes	80	66	21.2
*Grafton Town	Worcester	11,664	10,627	9.8
*Groveland Town	Essex	5,325	3,297	61.5
Halifax Town	Plymouth	3,505	1,599	119.2
Hamilton Town	Essex	6,374	5,488	16.1
Hanover Town	Plymouth	10,102	5,923	70.6
Hanson Town	Plymouth	7,056	4,370	61.5
Harwich Town	Barnstable	3,939	3,747	5.1
Hingham Town	Plymouth	18,867	15,378	22.7
Holbrook Town	Norfolk	11,787	10,104	16.7
*Holden Town	Worcester	12,564	10,117	24.2
Holliston Town	Middlesex	12,116	6,222	94.7
Hopedale Town	Worcester	4,294	3,987	7.7
*Hopkinton Town	Middlesex	5,943	4,932	20.5
Hull Town	Plymouth	10,011	7,055	41.9
Ipswich Town	Essex	10,853	8,544	27.0
Kingston Town	Plymouth	5,941	4,302	38.1
Lakeville Town	Plymouth	4,324	3,209	34.7
*Leicester Town	Worcester	9,015	8,177	10.2
*Lexington Town	Middlesex	31,628	27,691	14.2
*Lincoln Town	Middlesex	10,712	5,613	90.8
Lynn City	Essex	87,817	94,478	-7.1
Lynnfield Town	Essex	10,718	8,398	27.6
Malden City	Middlesex	55,851	57,676	-3.2
Manchester Town	Essex	5,086	3,932	29.3
Mansfield Town	Bristol	9,927	7,773	27.7

Massachusetts (continued)

City or Town	County	#Population		Percent Change
		1970	1960	
Marblehead Town	Essex	21,180	18,521	14.4
Marion Town	Plymouth	3,443	2,881	19.5
Marshfield Town	Plymouth	15,104	6,748	123.8
Mashpee Town	Barnstable	1,250	867	44.2
Mattapoisett Town	Plymouth	4,464	3,117	43.2
Medfield Town	Norfolk	9,634	6,021	60.0
Medford City	Middlesex	63,481	64,971	-2.3
Medway Town	Norfolk	7,896	5,168	52.8
Melrose City	Middlesex	32,881	29,619	11.0
Mendon Town	Worcester	2,502	2,068	21.0
Middleborough Town	Plymouth	13,519	11,065	22.2
Middleton Town	Essex	3,954	3,718	6.3
Milford Town	Worcester	19,299	15,749	22.5
*Millbury Town	Worcester	11,929	9,623	24.0
Millis Town	Norfolk	5,672	4,374	29.7
Millville Town	Worcester	1,754	1,567	11.9
Milton Town	Norfolk	27,011	26,375	2.4
Nahant Town	Essex	4,081	3,960	3.1
Nantucket Town	Nantucket	3,824	3,550	7.4
*Natick Town	Middlesex	31,055	28,831	7.7
Needham Town	Middlesex	29,737	25,793	15.3
New Bedford City	Bristol	101,262	102,477	-1.2
*Newbury Town	Essex	3,755	2,519	49.1
*Newburyport City	Essex	15,685	14,004	12.0
Newton City	Middlesex	91,194	92,384	-1.3
Norfolk Town	Norfolk	4,637	3,471	33.6
*North Andover Town	Essex	16,185	10,906	48.4
North Attleborough Town	Bristol	18,455	14,777	24.9
Northbridge Town	Worcester	11,798	10,800	9.2
North Reading Town	Middlesex	11,152	8,331	33.9
Norton Town	Bristol	9,425	6,818	38.2
Norwell Town	Plymouth	7,790	5,207	49.6
Norwood Town	Norfolk	30,828	24,898	23.8
Oak Bluffs Town	Dukes	936	1,419	-34.0
Orleans Town	Barnstable	2,955	2,342	26.2
*Oxford Town	Worcester	10,392	9,280	12.0
*Paxton Town	Worcester	3,740	2,399	55.9
Peabody City	Essex	47,650	32,202	48.0
Pembroke Town	Plymouth	11,021	4,919	124.0
Plainville Town	Norfolk	292	237	23.2
Plymouth Town	Plymouth	18,615	14,445	28.9
Plympton Town	Plymouth	1,221	821	48.7
Provincetown Town	Barnstable	2,830	3,389	-16.5

Massachusetts (continued)

City or Town	County	#Population		Percent Change
		1970	1960	
Quincy City	Norfolk	88,171	87,409	0.9
Randolph Town	Norfolk	27,117	18,900	43.5
Raynham Town	Bristol	6,659	4,150	60.5
Reading Town	Middlesex	22,534	19,259	17.0
Rehoboth Town	Bristol	6,447	4,953	30.2
Revere City	Suffolk	42,634	40,080	6.4
Rochester Town	Plymouth	1,745	1,559	11.9
Rockland Town	Plymouth	15,566	13,119	18.7
Rockport Town	Essex	5,536	4,616	19.9
Rowley Town	Essex	3,006	2,783	8.0
Salem City	Essex	39,971	39,211	1.9
Sandwich Town	Barnstable	5,107	2,082	145.3
Saugus Town	Essex	25,407	20,666	22.9
Scituate Town	Plymouth	16,744	11,214	49.3
Seekonk Town	Bristol	11,056	8,399	31.6
Sharon Town	Norfolk	12,510	10,070	24.2
*Sherborn Town	Middlesex	3,349	1,806	85.4
*Shrewsbury Town	Worcester	19,229	16,622	15.7
Somerset Town	Bristol	18,122	12,196	48.6
Somerville City	Middlesex	87,047	94,697	-8.1
Stoneham Town	Middlesex	20,565	17,821	15.4
*Sutton Town	Worcester	4,522	3,638	24.3
Swampscott Town	Essex	13,584	13,294	2.2
Swansea Town	Bristol	12,525	9,916	26.3
Taunton City	Bristol	43,766	41,132	6.4
*Tewksbury Town	Middlesex	22,464	15,902	41.3
Tisbury Town	Dukes	2,213	2,169	2.0
Topsfield Town	Essex	5,193	3,351	55.0
Truro Town	Barnstable	1,193	1,002	19.1
Upton Town	Worcester	3,455	3,127	10.5
Uxbridge Town	Worcester	8,233	7,789	5.7
Wakefield Town	Middlesex	25,268	24,295	4.0
Walpole Town	Norfolk	18,152	14,068	29.0
Waltham City	Middlesex	61,108	55,413	10.3
Wareham Town	Plymouth	11,098	9,461	17.3
Watertown Town	Middlesex	38,853	39,092	-0.6
*Wayland Town	Middlesex	13,588	10,444	30.1
*Webster Town	Worcester	14,761	13,680	7.9
Wellesley Town	Norfolk	27,951	26,071	7.2
Wellfleet Town	Barnstable	1,521	1,404	8.3
Wenham Town	Essex	3,818	2,798	36.5
*Westborough Town	Worcester	12,438	9,599	29.6
*West Boylston Town	Worcester	6,318	5,526	14.3

Massachusetts (continued)

City or Town	County	#Population		Percent Change
		1970	1960	
West Bridgewater Town	Plymouth	7,089	5,061	40.1
*Westford Town	Middlesex	10,275	6,261	64.1
*West Newbury Town	Essex	2,228	1,844	20.8
Westport Town	Bristol	9,655	6,641	45.4
West Tisbury Town	Dukes	441	360	22.5
Westwood Town	Norfolk	12,888	10,354	24.5
Weymouth Town	Norfolk	55,325	48,177	14.8
Whitman Town	Plymouth	10,968	10,485	4.6
*Wilmington Town	Middlesex	17,011	12,475	36.4
Winchester Town	Middlesex	22,107	19,376	14.1
Winthrop Town	Suffolk	20,181	20,303	-0.6
*Woburn City	Middlesex	37,307	31,214	19.5
Worcester City	Worcester	175,140	186,587	-6.1
Wrentham Town	Norfolk	7,272	6,685	8.8
Yarmouth Town	Barnstable	9,475	5,504	72.1
TOTAL		4,013,072	3,713,605	8.1

Rhode Island

City or Town	County	#Population		Percent Change
		1970	1960	
Barrington Town	Bristol	17,399	13,826	25.8
Bristol Town	Bristol	17,645	14,570	21.1
*Burrillville Town	Providence	9,998	9,119	9.6
Central Falls City	Providence	18,428	19,858	-7.2
Charlestown Town	Washington	2,790	1,966	41.9
*Coventry Town	Kent	22,766	15,432	47.5
Cranston City	Providence	73,633	66,766	10.3
Cumberland Town	Providence	26,453	18,792	40.8
East Greenwich Town	Kent	9,514	6,100	56.0
East Providence City	Providence	47,615	41,955	13.5
*Exeter Town	Washington	3,250	2,298	41.4
*Foster Town	Providence	2,618	2,097	24.8
*Glocester Town	Providence	5,104	3,397	50.3
Hopkinton Town	Washington	5,366	4,174	28.6
Jamestown Town	Newport	2,861	2,267	26.2
Johnston Town	Providence	21,734	17,160	26.7
Lincoln Town	Providence	16,094	13,551	18.8
Little Compton Town	Newport	2,345	1,702	37.8
Middletown Town	Newport	15,750	12,675	24.3
Narragansett Town	Washington	6,941	3,444	101.5
Newport City	Newport	33,866	47,049	-28.0
New Shoreham Town	Washington	456	486	-6.2
North Kingstown Town	Washington	24,995	18,977	31.7
North Providence Town	Providence	24,318	18,220	33.5
North Smithfield Town	Providence	9,296	7,632	21.8
Pawtucket City	Providence	76,213	81,001	-5.9
Portsmouth Town	Newport	12,436	8,251	50.7
Providence City	Providence	176,920	207,498	-14.7
Richmond Town	Washington	2,617	1,986	31.8
Scituate Town	Providence	7,407	5,210	42.2
Smithfield Town	Providence	13,296	9,442	40.8
South Kingstown Town	Washington	16,801	11,942	40.7
Tiverton Town	Newport	12,449	9,461	31.6
Warren Town	Bristol	10,483	8,750	19.8
Warwick City	Kent	82,985	68,504	21.1
*West Greenwich Town	Kent	1,818	1,169	55.5
West Warwick Town	Kent	24,190	21,414	13.0
Westerly Town	Washington	17,146	14,267	20.2
Woonsocket City	Providence	46,465	47,080	-1.3
TOTAL		922,461	859,488	7.3

Connecticut

City or Town	County	#Population		Percent Change
		1970	1960	
*North Stonington Town	New London	3,743	1,982	88.8
*Sterling Town	Windham	1,798	1,397	28.7
*Stonington Town	New London	15,514	13,969	11.1
*Voluntown Town	New London	1,446	1,028	40.7
TOTAL		22,501	18,376	22.4
SFNE REGION TOTAL		4,958,034	4,591,469	8.0

APPENDIX C

Description of Major Study Elements

SOCIAL, ENVIRONMENTAL, AND ECONOMIC FRAMEWORK

An economic, social and environmental framework including predictive forecasts for alternative futures setting forth significant indicators of social, environmental and economic trends and estimates of their behavior under varying environmental objectives. Alternative futures will closely relate to planning objectives set forth by the Water Resources Council. The framework will also include goals and objectives for plan development and basic criteria for evaluation of plans.

WATER RESOURCE PROGRAM ELEMENTS AND ALTERNATIVES

Intergration of single purpose plans which have optimized individual program elements into alternative water and related land resource plans. Identification of water resource conflicts and reinforcements and resolution of conflicts.

WATER AND RELATED LAND SUPPLY AND AVAILABILITY RELATIONSHIPS

Climate, Meteorology and Hydrology, Quality, Geology and Groundwater Availability

A quantification and qualitative description of water resources, water resource behavior and the factors which determine the characteristics of the resources, including a geological analysis of the area and an evaluation of groundwater availability.

Related Land

An evaluation of present and projected land use patterns and their impact on the water resource and related land including flood plains, shoreline, wetlands, groundwater recharge areas, and critical watershed lands.

WATER AND RELATED LAND NEEDS AND ACTION PROGRAMS

Flood Control and Streamflow Management

An evaluation of streamflow patterns and formulation of a program for management. A flood damage reduction program including flood plain management are included as well as identification evaluation of small private dams. Flood damage reduction of hurricane inundation is also included.

Water Quality Control

Formulation of a program for water quality control and an analysis of the interrelationship of water quality and water and related land resource development.

Groundwater Management

Formulation of a plan for groundwater management and development.

Land Use Patterns, Allocations and Management

Analysis of land use patterns and demands, and relationships to water resource development. Formulation of land use proposals and related management programs including flood plain zoning.

Wetlands Management

Identification and classification of important wetlands and development of a program for management and optimum use.

Sediment and Erosion

An analysis of sediment and erosion problems and recommendations for remedial action.

Estuarine and Coastal Studies

Evaluation of ecological, recreational, industrial, esthetic, commercial and other uses, values, problems and potentials of estuaries and the coastal zone, with recommendations for management of resources, and physical protection (including beach erosion) and improvement programs.

Environment

Analysis of needs and development of a strategy for protection and enhancement of ecological, esthetic and cultural values associated with water and related land resources.

Recreation

Formulation of a water-oriented recreation plan to satisfy the recreational demands of the region.

Fish and Wildlife

Development of proposals for fisheries and wildlife enhancement.

Water Supply

Analysis of water supply demands and formulation of regional water development plans for meeting municipal and industrial needs.

Power

Analysis of power demands and evaluation of opportunities and problems associated with power development including the evaluation of alternative power plant sites.

Navigation

Analysis of navigation needs and development of proposals for meeting demands.

Irrigation and Drainage

Evaluation of irrigation needs for water and analysis of alternative methods for satisfying those demands. Assessment of land drainage requirements.

Health Aspects

Evaluation of health relationships pertinent to water resource and related land development and formulation of proposals to ensure protection of health.

LEGAL AND INSTITUTIONAL ENVIRONMENT

Analysis of legal and institutional constraints and development of legal and institutional requirements for implementation of the water and related land resource management plan.



